

TEACHERS' VIEWS ABOUT POSTSECONDARY PLANNING AND EFFECTIVE
TRANSITION PROGRAMS FOR STUDENTS WITH DISABILITIES IN BOTSWANA

A DISSERTATION
SUBMITTED TO THE GRADUATE SCHOOL
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE
DOCTOR OF EDUCATION

BY
GOITSE OOKEDITSE
DR. LISA PUFFPAFF – ADVISOR

BALL STATE UNIVERSITY
MUNCIE, INDIANA

MAY 2018

TEACHERS' VIEWS ABOUT POSTSECONDARY PLANNING AND EFFECTIVE
TRANSITION PROGRAMS FOR STUDENTS WITH DISABILITIES IN BOTSWANA

A DISSERTATION

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE

DOCTOR OF EDUCATION

BY

GOITSE OOKEDITSE

DISSERTATION ADVISOR: DR. LISA PUFFPAFF

APPROVED BY:

_____ Committee Chairperson	_____ Date
_____ Committee Member	_____ Date
_____ Committee Member	_____ Date
_____ Committee Member	_____ Date
_____ Dean of Graduate School	_____ Date

BALL STATE UNIVERSITY

MUNCIE, INDIANA

MAY 2018

DEDICATION

First, this research study is dedicated to God Almighty and his glory. Secondly, the study is dedicated to the Ookeditse family in Botswana, third to the University of Botswana, and finally to all individuals living with disabilities in Botswana and worldwide. Thanks to Jesus Christ, my Lord and personal Savior for his mercy, favor, and grace throughout the entire period of my doctoral study. Thanks be to my family and all who have dedicated their time, efforts, prayers, money, support, knowledge, wisdom, and counsel towards making this project a reality. It would have been impossible for my dream to come true without your physical, emotional, mental, financial, spiritual, and other forms of support. You have never given up on me, and I thank you for a collective responsibility in the verge of achieving a common goal. You have availed yourselves when I needed you the most, and today we have all crossed the bridge to success.

ACKNOWLEDGMENTS

I thank God Almighty for his unconditional love and provision throughout this educational journey. Indeed, he is a God of the impossibilities, and he makes a way where there seems to be no way.

Thanks to my spiritual mother, Prophetess Binnie Goeiemann, who prophesied accurately by the special grace of God about this journey in 2008, when there was no sign that this educational endeavor would become a reality. I thank you for your prayers, and continually encouraging me in the Christian faith through the Word of God.

I would like to thank Dr. Michael W. Harvey for his willingness to initially assume the role of chairperson for my doctoral committee until he resigned from Ball State University. Your expertise, insight, knowledge, and encouragement has highly contributed to the success of this research project. Thank you Dr. Lisa Pufpaff for agreeing to take over from Dr. Harvey and continuing as the chair of my doctoral committee, despite having been notified of this change within a short time. You have been an amazing advisor, as you dedicated your time, encouragement, and guidance towards the success of this study. Thank you Drs. Nina Yssel, Marilyn Quick, and Molly Tschoop for serving on my doctoral committee. Your time and suggestions have been critical in ensuring the success of this research project. I have learned a lot from you, and thank you for your input.

I also thank the University of Botswana Staff Training and Development office for providing financial support throughout the course of my study. I am also grateful to all Ball State Departments of Special Education and Counseling Psychology staff, and faculty who have played significant roles to help me complete the coursework for my program of study successfully. Thanks again to all who served as expert panelist in the review process of my

survey instruments, including pilot-study participants. You provided me with useful feedback and specific comments that helped improve my survey instruments and make them more user friendly. I am also grateful to the Rinker Center for International Programs for their efforts in ensuring that I maintained an excellent immigration status throughout my entire stay in the United States. I also give a special thanks to the Ball State Disability Services office for the various kinds of support they provided whenever I needed them.

I also give a special thanks to my beautiful wife, Seeletso Ookeditse, for her love and support in all ways in the pursuit of this educational goal. Without your immense sacrifice and support, this work would not have been possible. You have truly proven to be a wife rather than a “knife.” I express my sincere gratitude to my daughters, Etsile Beauty and Bokang Angel for being wonderful, lovely, and obedient children when I had less precious time to spend with them. I would also like to thank my dear mother, mother-in-law, father-in-law, brothers and their wonderful wives, sisters, cousins, uncles, and aunts for all kinds of support offered. This journey would have been much more difficult without your constant support, prayers, and encouragement. I wish all my many well-wishers the best in all their endeavors. To all who contributed to the success of this research project in various ways, whose names I have not mentioned, I say thank you. Thank you Dr. Kianre for your statistical knowledge and expertise. May the mercy of God continue to speak for you all, his favor locates you, and his grace continue to carry you through.

ABSTRACT

DISSERTATION: Teachers' Views About Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana

STUDENT: Goitse Ookeditse

DEGREE: Doctor of Education

COLLEGE: Teachers College

DATE: May 2018

PAGES: 609

Transition planning is not an alternative for students with disabilities, but rather a fundamental aspect of their lives upon which educational programs and activities are developed to achieve successful postsecondary outcomes. Unlike developed countries such as the United States, Botswana does not have a transition mandate that guides the preparation of individuals with disabilities for adulthood. In this study, the researcher utilized the United States' transition framework, with modifications, to suit the cultural context of Botswana in an exploration of perceptions of secondary and vocational school teachers on effective transition programs for students with disabilities. The study especially focused on students with visual impairments, in a sampling of Botswana's secondary and vocational schools. It examined differences in the beliefs, knowledge, and views of general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers regarding supporting students with disabilities to achieve successful post-school outcomes, as well as participants' perceptions about the importance of the academic and functional curriculum in the transition planning process. Teachers expressed diverse views, beliefs, and knowledge levels concerning transition planning practices and principles. Recommendations for practice and future research are discussed.

TABLE OF CONTENTS

ABSTRACT.....	6
LIST OF TABLES.....	14
CHAPTER 1 – INTRODUCTION.....	23
Statement of the Problem.....	26
Conceptual and Legal Framework.....	32
Purpose of Study.....	37
Research Questions.....	39
Significance of the Study.....	40
Basic Assumptions.....	42
Delimitations.....	43
Definition of Terms and Acronyms.....	43
Summary.....	47
CHAPTER 2 - LITERATURE REVIEW.....	48
Search Methods.....	48
Postsecondary School Transition Overview.....	49
Transition Planning Models.....	50
Postsecondary Transition for Students with Disabilities.....	53
Historical Perspectives of Special Education and Current Legislation.....	54
Secondary Transition Planning Process.....	59
Assessment for Transition Planning.....	63
Secondary School Practices Associated with Successful Postsecondary Outcomes for Students with Visual Impairments.....	68

Student-Focused Planning.....	71
Self-determination.....	73
Program of study.....	76
Student Development.....	78
Assistive technology.....	81
Orientation and mobility.....	85
Social skills.....	87
Paid employment/Work experience.....	89
Vocational education.....	94
Academic competence.....	96
Program Structure.....	96
Family Involvement.....	97
Interagency Collaboration.....	103
Postsecondary Education and Training.....	105
Historical Perspective and Background of Botswana.....	110
Disability and the National Policy on Disability in Botswana.....	114
Botswana Education Policy Overview and Current Education Structure.....	117
Special Education in Botswana.....	122
Postsecondary Transition in Botswana.....	126
CHAPTER 3 – METHODOLOGY.....	130
Purpose of Study.....	130
Research Questions.....	131
Research Design.....	133

Sample and Sampling Method.....	136
Permission Process.....	138
Instrumentation.....	139
Section 1.....	140
Section 2.....	140
Section 3.....	141
Section 4.....	141
Section 5.....	142
Survey Development and Review.....	142
Expert Panel.....	143
Pilot Testing.....	144
Institutional Review Board (IRB) Approval.....	145
Survey Procedures.....	145
Data Analysis.....	148
The Independent Variables.....	148
The Dependent Variables.....	149
Analytic Plan.....	149
Summary.....	153
CHAPTER 4 – RESULTS.....	154
Internal Consistency.....	156
Descriptive Statistics.....	158
Participants’ Demographic Characteristics.....	159
Organization and Presentation of Results.....	162

Research Question 1.....	168
Participants’ “Do Not Know” Responses on Transition Views and Beliefs.....	168
Participants’ Differences on Transition Views and Beliefs.....	178
Participants’ “Do Not Know” Responses on Transition Knowledge.....	190
Participants’ Differences on Transition Knowledge.....	201
Research Question 2.....	219
Participants’ “Do Not Know” Responses on Current Transition Practices.....	220
Participants’ Differences on Current Transition Practices.....	236
Research Question 3.....	259
Participants’ “Do Not Know” Responses on Specific Transition Practices for Students with Visual Impairments.....	259
Participants’ Differences on Specific Transition Practices for Students with Visual Impairments.....	272
Participants’ “Do Not Know” Responses on Coursework Related to Senior Secondary School Participation.....	293
Participants’ Differences on Coursework Related to Senior Secondary School Participation.....	298
Participants’ “Do Not Know” Responses on Senior Secondary Coursework Related to Postsecondary Education Participation.....	304
Participants’ Differences on Senior Secondary Coursework Related to Postsecondary Education Participation.....	308
Participants’ “Do Not Know” Responses on Secondary Coursework Related to Employment Participation.....	313

Participants' Differences on Secondary Coursework Related to Employment Participation.....	322
Participants' "Do Not Know" Responses on Secondary Coursework Related to Technical and Vocational Training Participation.....	331
Participants' Differences on Secondary Coursework Related to Technical and Vocational Training Participation.....	341
Participants' "Do Not Know" Responses on Vocational Coursework Related to Higher Education Participation.....	350
Participants' Differences on Vocational Coursework Related to Higher Education Participation.....	354
Participants' "Do Not Know" Responses on Vocational Coursework Related to Employment Participation.....	357
Participants' Differences on Vocational Coursework Related to Employment Participation.....	361
Research Question 4.....	363
Participants' "Do Not Know" Responses on Transition Planning Barriers.....	363
Participants' Differences on Transition Planning Barriers.....	374
CHAPTER 5 - DISCUSSION AND RECOMMENDATIONS.....	387
Sample and Returns.....	388
Discussion.....	389
Participants' Views, Beliefs, and Knowledge of Transition Principles and Practices....	389
Perceptions About Current Transition Practices for Students with Disabilities.....	396
Beliefs About Specific Practices for Students with Visual Impairments.....	402

Beliefs About Coursework for Students with Visual Impairments.....	408
Perceptions About Transition Barriers.....	414
Conclusions.....	419
Limitations.....	425
Implications for Practice.....	427
Recommendations.....	430
REFERENCES.....	436
APPENDIX A - BOTSWANA MINISTRY OF BASIC EDUCATION, MINISTRY OF EMPLOYMENT, LABOR PRODUCTIVITY AND SKILLS DEVELOPMENT, AND MINISTRY OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY PERMISSION LETTER.....	482
APPENDIX B - REPLY LETTER FROM BOTSWANA MINISTRY OF BASIC EDUCATION.....	485
APPENDIX C - REPLY LETTER FROM BOTSWANA MINISTRY OF EMPLOYMENT, LABOR PRODUCTIVITY AND SKILLS DEVELOPMENT.....	487
APPENDIX D - REPLY LETTER FROM BOTSWANA MINISTRY OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY.....	489
APPENDIX E - REPLY LETTER FROM KGATLENG REGION DIRECTOR.....	491
APPENDIX F - REPLY LETTER FROM SOUTH EAST REGION DIRECTOR.....	493
APPENDIX G - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #1.....	495
APPENDIX H - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #2.....	497
APPENDIX I - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #3.....	499
APPENDIX J - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #4.....	501.

APPENDIX K - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #5.....	503
APPENDIX L - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #6.....	505
APPENDIX M - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #7.....	507
APPENDIX N - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #8.....	509
APPENDIX O - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #9.....	511
APPENDIX P - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #10.....	513
APPENDIX Q - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #11.....	515
APPENDIX R - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #12.....	517
APPENDIX S - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #13.....	519
APPENDIX T - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #14.....	521
APPENDIX U - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #15.....	523
APPENDIX V - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #16.....	525
APPENDIX W - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #17.....	527
APPENDIX X - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #18.....	529
APPENDIX Y - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #19.....	531
APPENDIX Z - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #20.....	533
APPENDIX AA - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #21.....	535
APPENDIX BB - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #22.....	537
APPENDIX CC - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #23.....	539
APPENDIX DD - REPLY LETTER FROM JUNIOR SECONDARY SCHOOL #24.....	541
APPENDIX EE - REPLY LETTER FROM SENIOR SECONDARY SCHOOL #1.....	543
APPENDIX FF - REPLY LETTER FROM SENIOR SECONDARY SCHOOL #2.....	545
APPENDIX GG - REPLY LETTER FROM SENIOR SECONDARY SCHOOL #3.....	547

APPENDIX HH - REPLY LETTER FROM SENIOR SECONDARY SCHOOL #4.....	549
APPENDIX II - REPLY LETTER FROM VOCATIONAL SCHOOL #1.....	551
APPENDIX JJ - REPLY LETTER FROM VOCATIONAL SCHOOL #2.....	553
APPENDIX KK - REPLY LETTER FROM VOCATIONAL SCHOOL #3.....	555
APPENDIX LL - REPLY LETTER FROM VOCATIONAL SCHOOL #4.....	557
APPENDIX MM - REPLY LETTER FROM VOCATIONAL SCHOOL #5.....	559
APPENDIX NN - REPLY LETTER FROM VOCATIONAL SCHOOL #6.....	561
APPENDIX OO - JUNIOR SECONDARY SCHOOL SURVEY.....	563
APPENDIX PP - SENIOR SECONDARY SCHOOL SURVEY.....	573
APPENDIX QQ - VOCATIONAL SCHOOL SURVEY.....	582
APPENDIX RR - JUNIOR SECONDARY SCHOOL CONSENT FORM.....	592
APPENDIX SS - SENIOR SECONDARY SCHOOL CONSENT FORM.....	595
APPENDIX TT - VOCATIONAL SCHOOL CONSENT FORM.....	598
APPENDIX UU - COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI) REPORT.....	601
APPENDIX VV - BALL STATE UNIVERSITY IRB APPROVAL LETTER.....	604
APPENDIX WW -BALL STATE UNIVERSITY IRB MODIFIED APPROVAL LETTER...	607

LIST OF TABLES

Table 1. Percentage of Targeted Participants and Survey Respondents.....	158
Table 2. Survey Return Rates for General Education Teachers, Special Education Teachers, Guidance and Counseling Teachers, and Vocational Teachers by Type of School.....	159
Table 3. Percentages of Respondents' Demographic Characteristics by Teacher Position.....	161
Table 4. Percentages of Respondents' Demographic Characteristics by School Type.....	163

Table 5. Percentages of Respondents' Demographic Characteristics by School Region.....	165
Table 6. Percentages of "Do Not Know" Responses of Transition Planning Views by Teacher Position.....	171
Table 7. Percentages of "Do Not Know" Responses of Transition Planning Views by School Type.....	174
Table 8. Percentages of "Do Not Know" Responses of Transition Planning Views by School Region.....	177
Table 9. Kruskal-Wallis Analysis for Respondents' Views of Transition Planning by Teacher Position.....	181
Table 10. Mann Whitney <i>U</i> Analysis for Respondents' Views of Transition Planning by School Type.....	185
Table 11. Mann Whitney <i>U</i> Analysis for Respondents' Views of Transition Planning by School Region.....	188
Table 12. Percentages of "Do Not Know" Responses of Transition Knowledge by Teacher Position.....	192
Table 13. Percentages of "Do Not Know" Responses of Transition Knowledge by School Type.....	196
Table 14. Percentages of "Do Not Know" Responses of Transition Knowledge by School Region.....	200
Table 15. Kruskal-Wallis Analysis for Respondents' Transition Knowledge by Teacher Position.....	202
Table 16. Mann Whitney <i>U</i> Analysis for Respondents' Transition Knowledge by School Type.....	204

Table 17. Mann Whitney <i>U</i> Analysis for Respondents' Transition Knowledge by School Region.....	206
Table 18. Kruskal-Wallis Analysis for Junior Secondary School Respondents' Transition Knowledge by Teacher Position.....	209
Table 19. Mann Whitney <i>U</i> Analysis for Junior Secondary School Respondents' Transition Knowledge by School Region.....	212
Table 20. Kruskal-Wallis Analysis for Senior Secondary School Respondents' Transition Knowledge by Teacher Position.....	216
Table 21. Mann Whitney <i>U</i> Analysis for Senior Secondary School Respondents' Transition Knowledge by School Region.....	220
Table 22. Percentages of "Do Not Know" Responses for Perceptions About Current Transition Practices by Teacher Position.....	226
Table 23. Percentages of "Do Not Know" Responses of Perceptions About Current Transition Practices by School Type.....	229
Table 24. Percentages of "Do Not Know" Responses of Perceptions About Current Transition Practices by School Region.....	233
Table 25. Kruskal-Wallis Analysis for Respondents' Perceptions About Current Transition Practices by Teacher Position.....	240
Table 26. Kruskal-Wallis Analysis for Respondents' Perceptions About Current Transition Practices by School Type.....	245
Table 27. Mann Whitney <i>U</i> Analysis for Respondents' Perceptions About Current Transition Practices by School Region.....	248

Table 28. Kruskal-Wallis Analysis for Junior and Senior Secondary School Respondents’ Perceptions About Current Transition Practices by Teacher Position.....	250
Table 29. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents’ Perceptions About Current Transition Practices by School Type.....	251
Table 30. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents’ Perceptions About Current Transition Practices by School Region.....	253
Table 31. Kruskal-Wallis Analysis for Junior Secondary School Respondents’ Perceptions About Current Transition Practices by Teacher Position.....	254
Table 32. Mann Whitney <i>U</i> Analysis for Junior Secondary School Respondents’ Perceptions About Current Transition Practices by School Region.....	255
Table 33. Kruskal-Wallis Analysis for Senior Secondary School Respondents’ Perceptions About Current Transition Practices by Teacher Position.....	256
Table 34. Mann Whitney <i>U</i> Analysis for Senior Secondary School Respondents’ Perceptions About Current Transition Practices by School Region.....	257
Table 35. Mann Whitney <i>U</i> Analysis for Vocational School Respondents’ Perceptions About Current Transition Practices by School Region.....	258
Table 36. Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position.....	262
Table 37. Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by School Type.....	267
Table 38. Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by School Region.....	270

Table 39. Kruskal-Wallis Analysis for Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position.....	277
Table 40. Kruskal-Wallis Analysis for Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Type.....	283
Table 41. Mann Whitney <i>U</i> Analysis for Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Region.....	286
Table 42. Kruskal-Wallis Analysis for Junior and Senior Secondary Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position.....	289
Table 43. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Type.....	290
Table 44. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Region.....	291
Table 45. Mann Whitney <i>U</i> Analysis for Vocational School Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Region.....	292
Table 46. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Senior Secondary School Participation by Teacher Position (Junior Secondary School).....	294
Table 47. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Senior Secondary School Participation by School Region (Junior Secondary School).....	297

Table 48. Kruskal-Wallis Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Senior Secondary School Participation by Teacher Position.....	300
Table 49. Mann Whitney <i>U</i> Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Senior Secondary School Participation by School Region.....	303
Table 50. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Postsecondary School Participation by Teacher Position (Senior Secondary School).....	305
Table 51. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Postsecondary School Participation by School Region (Senior Secondary School).....	307
Table 52. Kruskal-Wallis Analysis for Senior Secondary School Respondents' Beliefs About Coursework for Postsecondary School Participation by Teacher Position.....	310
Table 53. Mann Whitney <i>U</i> Analysis for Senior Secondary School Respondents' Beliefs About Coursework for Postsecondary School Participation by School Region.....	312
Table 54. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Employment Participation by Teacher Position (Junior and Senior Secondary Schools).....	315
Table 55. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Employment Participation by School Type (Junior and Senior Secondary Schools).....	317
Table 56. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Employment Participation by School Region (Junior and Senior Secondary Schools).....	319
Table 57. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Employment Participation by Teacher Position (Junior Secondary School).....	321
Table 58. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Employment Participation by School Region (Junior Secondary School).....	322

Table 59. Kruskal-Wallis Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Employment Participation by Teacher Position.....	324
Table 60. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Employment Participation by School Type.....	326
Table 61. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Employment Participation by School Region.....	328
Table 62. Kruskal-Wallis Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Employment Participation by Teacher Position.....	330
Table 63. Mann Whitney <i>U</i> Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Employment Participation by School Region.....	331
Table 64. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position (Junior and Senior Secondary)...	332
Table 65. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Technical and Vocational Education Participation by School Type (Junior and Senior Secondary).....	335
Table 66. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Technical and Vocational Education Participation by School Region (Junior and Senior Secondary).....	337
Table 67. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position (Junior Secondary School).....	338
Table 68. Percentages of "Do Not Know" Responses of Beliefs About Coursework for Technical and Vocational Education Participation by School Region (Junior Secondary School).....	340
Table 69. Kruskal-Wallis Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position.....	342

Table 70. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by School Type.....	344
Table 71. Mann Whitney <i>U</i> Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by School Region.....	346
Table 72. Kruskal-Wallis Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position.....	348
Table 73. Mann Whitney <i>U</i> Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by School Region.....	349
Table 74. Percentages of “Do Not Know” Responses of Beliefs About Coursework for Postsecondary Education Participation by School Region (Vocational School).....	353
Table 75. Mann Whitney <i>U</i> Analysis of Vocational School Respondents' Beliefs About Coursework for Postsecondary Education Participation by School Region.....	356
Table 76. Percentages of “Do Not Know” Responses of Beliefs About Coursework for Employment Participation by School Region (Vocational School).....	359
Table 77. Mann Whitney <i>U</i> Analysis of Vocational School Respondents' Beliefs About Coursework for Employment Participation by School Region.....	362
Table 78. Percentages of “Do Not Know” Responses on Perceptions About Transition Barriers by Teacher Position.....	366
Table 79. Percentages of “Do Not Know” Responses on Perceptions About Transition Barriers by School Type.....	370

Table 80. Percentages of “Do Not Know” Responses on Perceptions About Transition Barriers by School Region.....	373
Table 81. Kruskal-Wallis Analysis of Respondents’ Perceptions About Transition Barriers by Teacher Position.....	377
Table 82. Kruskal-Wallis Analysis of Respondents’ Perceptions About Transition Barriers by School Type.....	381
Table 83. Mann Whitney <i>U</i> Analysis of Respondents’ Perceptions About Transition Barriers by School Region.....	384

CHAPTER 1 – INTRODUCTION

There has been an increased realization of the challenge of reaching appropriate post-school outcomes for youth with disabilities compared to their counterparts without disabilities despite the efforts made by policymakers and practitioners to close this gap (Cobb et al., 2013; Test et al., 2009). According to Newman et al. (2011), 60% of students with disabilities in the United States had enrolled in and completed a class from a postsecondary school within a period of eight years after exiting from high school compared to 67% of same-age counterparts in the general population. Students with disabilities had a lower probability of living independently as adults, getting married, having a checking account or having a credit card at 45%, 13%, 59%, and 61% rates respectively compared to their counterparts in the general population at 59%, 19%, 74%, and 61% respectively. Eight years after exiting high school, students with disabilities were employed at lower rates than same-age counterparts in the general population, even though statistically significant differences were only evident for students with more severe disability classifications (Newman et al., 2011). Recent policy developments have been critical in promoting consumer-oriented education and service delivery models based on students' needs, strengths, priorities, and preferences (Dell, Newton, & Petroff, 2012; Rubin & Roessler, 2008). Transition planning is not an alternative for students with disabilities, but rather a fundamental aspect of their lives upon which educational programs and activities are developed in order to achieve successful postsecondary outcomes. Since 1990, the Individuals with Disabilities Education Act (IDEA) has made provisions for all students with disabilities to receive appropriate services as they advance from school to adulthood. These services may include vocational education, postsecondary education, employment, independent living, and involvement in the community.

As a contentious issue, not only has transition planning for students with disabilities been a challenge for developed countries such as the United States, but also for developing nations like Botswana. Lack of comprehensive transition programs has partly contributed to lower rates of postsecondary school attendance and employment for youth with disabilities in Botswana. In Botswana, the situation is worrisome because students with disabilities continue to experience school drop-outs and school failure, they live with their parents almost the rest of their lives, and they experience difficulties securing employment even when qualified. Several issues have been noted as contributing to the negative school experiences and poor learning and post-school outcomes for students with disabilities. These include barriers to curricular access such as shortage of highly qualified teachers, congested curriculum concerning courses and content, provision of inappropriate support materials or unavailability of support materials, inappropriate assessment measures and procedures, inappropriate placements, inadequate individualized planning efforts, lack of linkages between the school and the community, poor collaboration between the school and parents, and poor collaboration and coordination within and between the Ministry of Education structures (Dart, 2007; Dart, Didimalang, & Pilime, 2002; Kisanji, 2003). Although Botswana is a relatively wealthy country based on regional standards, the emergence of the HIV/AIDS pandemic has significantly led to a diversion of resources out of education in current years (Dart, 2007).

Different legislative mandates have been put in place in many countries as driven by international initiatives to provide equal opportunities for individuals with disabilities across all life domains including education to ensure that they are empowered to live independent lives and enjoy economic self-sufficiency (United Nations Enable, 2007). Arguably, the various legislative mandates in different countries have been critical in providing a foundation regarding how

students with disabilities should be educated in ways that enhance their learning outcomes and improve their quality of life potential. Since Botswana gained independence in 1966 from Britain, several policies have been formulated to guide the education sector and significant progress has been made concerning improving the lives of individuals with disabilities across the lifespan. The major policies that have played a critical role in students' education, including those with disabilities, are the National Policy on Education of 1977 which was later revised and named the Revised National Policy on Education of 1994 and the Inclusive Policy on Education of 2011 (Ministry of Education and Skills Development [MOESD], 2015). Despite noticeable progress brought by these policies concerning educational access, equity, and improved quality of education in Botswana, little has been achieved in transition programming and practices for students with disabilities. The paucity of research on transition programming and planning for secondary students with disabilities makes it critically important to focus efforts on conducting research in this area. Professional literature and education reports showed that the initial focus of the Government of Botswana was on integration, and more recently, inclusive education policy has been the central focus of education (Brandon, 2006; Chhabra, Srivastavs, & Srivastava, 2010; Mangope, 2002).

Chapter One, therefore, sets the stage for this study about teachers' views regarding postsecondary planning and effective transition programs for students with disabilities, especially those with visual impairments, in Botswana. The problem statement, background, purpose of the study, research questions, the significance of the study, delimitations, the definition of terms, and chapter summary are provided.

Statement of the Problem

The transition from school to adulthood is important for all individuals regardless of having a disability or not. Enhanced post-school outcomes for youths continue to draw national interest. Researchers such as Fussell and Furstenberg (2005) suggested that, among other social changes for youths, an increasing emphasis on postsecondary education and the increasing challenges young adults encountered in achieving economic self-sufficiency prolonged the transitions often related to adulthood. Based on this reality, increased research efforts focused on the early adulthood stage as different from the adolescence and full adulthood stages (e.g., Arnett 2002; 2001). Consequently, studies such as the National Longitudinal Transition Study-2 (NLTS2) have been significant in attempting to understand the experiences of secondary school students with disabilities as they pass through early adulthood. The availability of effective transition planning and services in secondary schools is key to reducing the transition challenges that youths experience after leaving secondary school. Previous studies have shown several secondary school practices that helped to improve the post-school outcomes for youths with disabilities. These studies have been conducted with transition-age youths on several disability categories and reported a number of strategies that aim at improving postsecondary outcomes for youths such as work experience during high school (Alias, 2014; Baer et al., 2003; Hasazi, Gordon, & Roe, 1985), self-determination (Benitez, Lattimore, & Wehmeyer, 2005; Rowe, Mazzotti, Hirano, & Alverson, 2015; Test, Bartholomew, & Bethune, 2015; Wehmeyer & Palmer, 2003), social skills training (Benz, Yovanoff, & Doren, 1997; Cawthon et al., 2015; Sacks & Wolffe, 2006), and vocational education credit in high school (Baer et al., 2003; Halpern, Yovanoff, Doren, & Benz, 1995; Harvey, 2002). However, little is known about

secondary school transition programs for students with visual impairments geared toward promoting their post-school outcomes (National Council on Disability, 2000).

It is imperative to note that the primary goal of education for all youths is to make sure that they are well-equipped and ready to assume the roles of adults and engage fully in their communities. Transition to adulthood and community participation occurs shortly after completion of secondary school. Early works have shown a common agreement about the importance of having a broad notion of engagement and successful transitions for all youths. For example, when reviewing follow up and follow along studies, Halpern (1990) reported that many people with disabilities valued residential and personal or social adjustment more highly than vocational adjustment. Along the same vein, Jay (1991) emphasized the importance of focusing on a broad range of outcomes for students, extending the meaning of success to include sheltered work, unpaid employment, training and volunteerism. In addition to acknowledging the wide range of post-school outcomes, Levine and Nourse (1998) noted the significance of paying attention to the various outcomes as well as factors that resulted in the success of youths.

It is, therefore, critical to understand the importance of successful postsecondary outcomes for youths. Engagement of youth in their communities after exiting secondary school involves participation in such things as employment, postsecondary education, and job training. The NLTS2 defined employment as working for pay other than working around the house, and this included sheltered or supported employment (Wagner, Newman, Cameto, Garza, & Levine, 2005). In contrast, postsecondary education refers to enrolling in courses toward a General Education Diploma (GED) or attendance at business, technical, or vocational school. Postsecondary education may include a junior or community college for two years or a college or university for four years whereas job training entails receiving training in specific job skills (e.g.,

food service, web page designer, car repair) either from government training programs or agencies.

Many youths with disabilities who are out of school (79%) have demonstrated participation in postsecondary education, employment, job training, or a combination of these activities following graduation from high school (Wagner et al., 2005). The most common activity immediately after high school was employment, and about 70% of youths having disabilities secured employment. However, it is unfortunate that only about 50% of these youths participated in paid employment. The proportion of youth with disabilities who attended a postsecondary school was about 30% with only 4% showing engagement in postsecondary activities exclusively. In an examination of the engagement of out-of-school-youths with disabilities by disability classification, the NLTS2 reported that 83.1% of youths with visual impairments were engaged in some post-school activity, thus making these youths the second highly engaged after those with learning disabilities (Wagner et al., 2005). Employment and postsecondary education have been reported as the most dominant activities for out-of-school youths with visual impairments. However, when compared to other disability categories in the area of employment only, youths with visual impairments have been found to be the least engaged. For example, the NLTS2 reported that these youths were the second least engaged in employment compared to other disability populations (Wagner et al., 2005). Also, of all the engagement modes, youth with visual impairments have been found to be least engaged in postsecondary education only.

It is, however, critical to note that good secondary planning is a driving force toward students' successful post-school outcomes. Students with disabilities provided with special education services in secondary school are expected to develop decision-making and self-

determination skills to improve ways of expressing their opinions and advocating for their interests and needs, as well as make decisions that show competence, motivation, and personal desires (Rowe et al., 2013; Zhang, 2001). Contrary to having other people make life choices for them, the priorities and hopes of youth with disabilities continued to be expressed and taken into consideration, particularly concerning their planning to transition from school to assume adult roles (Johnson & Sharpe, 2000; Morningstar & Mazzotti, 2014). Self-directed transition planning research indicated that an increased number of students with disabilities attended their Individualized Education Program (IEP) meetings (Arndt, Konrad, & Test, 2006; Hasazi, Furney, & DeStefano, 1999) and that self-determination was a pillar for successful transition outcomes (Test et al., 2009). Students expected to be actively involved in planning their transitions and who have received training to participate in self-determination tasks at an early stage in secondary school have also been found to be greatly responsible for their lives after school (Malian & Nevin, 2002; Price, Wolensky, & Mulligan, 2002).

The importance of school staff in the transition planning of students with disabilities cannot be taken lightly. School staff has reported mixed views concerning how suitable students' school programs were for assisting them to realize their transition goals. For example, Cameto, Levine, and Wagner (2004) found that school staff reported that 39% of students had a school program that was "very well suited" for preparing them to attain their transition goals, and that 43% had programs that were "fairly well suited" to realizing their transition goals. Furthermore, the researchers reported that school staff indicated that the educational programs of 16% of students with disabilities were only "somewhat suitable" for preparing them to attain their transition goals. The school programs of only 2% of students with disabilities were reported as "not at all suitable" to achieve the same purpose. These results reflected the extent to which more

needed to be done to ensure that educational programs were well-suited to the transition goals of students with disabilities. Even though 52% of school staff rated the educational programs of students with visual impairments as “very well suited” to meet their transition goals compared to other disability categories (Cameto, et al., 2004), the question remains as to what schools failed to do to have more students whose programs were well-suited to their transition goals.

The No Child Left Behind (NCLB) Act of 2001 has led to an enhanced awareness of the significance of family-school partnerships by giving attention to the fundamental role parents played in helping their children’s learning, and motivation of parents to actively participate in their children’s education. The Every Student Succeeds Act (ESSA, 2015) is a reauthorization of the NCLB and continues many of the NCLB provisions. IDEA (2004) also stipulated family involvement as one of its core principles. According to IDEA (2004), parents need to be provided with adequate information about their children’s education in a timely fashion to enable them to participate fully in educational decision making. Parental notification and consent were noted as major issues regarding any decision relating to a student’s education, and that parents needed to be notified within a reasonable time, and consent obtained before a school initiated or changed a student’s identification, evaluation, or educational placement (Yell, 2006). Evidence suggested that the involvement of families in the education of their children was critical in promoting education growth and success. Several reviews of literature on family involvement have demonstrated that parents’ participation in their children’s education benefits children (Fan & Chen, 2001; Henderson & Mapp, 2002; Jeynes, 2003; Kim & Park, 2012). When families supported their children’s education, this positively contributed to students’ increased motivation to learn and self-confidence in academics (Hoover-Dempsey et al., 2001), and improved academic performance (Sibley & Dearing, 2014; Simon, 2001). Even though family involvement

is vital for all students, it may be particularly important for those with disabilities (Turnbull & Turnbull, 2001). When examining the relationship between family involvement and student outcomes in the NLTS2, Newman (2005) found that youth with disabilities whose families were more involved in their education tended to have better grades, were more involved in organized groups particularly those that were school-based, had more friendships, and had secured regular paid jobs than those whose families were less involved at school. These findings suggested that families played a crucial role in the preparation of students for successful post-school outcomes. Hence, the need for teachers to make efforts to work collaboratively with parents in the transition planning process.

Despite the fact that the transition of youths with visual impairments from school to postsecondary education and/or employment was a critical issue that gained considerable attention, inadequate empirical research was conducted to find out which variables contributed toward the successful transition for this population (McDonnall & Crudden, 2009). What is not well known is what intervention strategies are effective for secondary school students with visual impairments as well as whether strategies that have been applied to other disability classifications work for this population. Although the planning and preparation of secondary school students with visual impairments for postsecondary education and other adult roles are often left to the teachers, a paucity of research has focused on the perceptions of these teachers regarding students' preparation for adulthood. Understanding the experiences and views of the teachers who provide support to secondary school students with visual impairments could result in improved post-school outcomes. Moreover, research in this area has focused on transition for youths with disabilities in developed countries and does not adequately include developing countries like Botswana.

Conceptual and Legal Framework

For proper framing of this study, it was appropriate to take into account transition models that have been found to be effective concerning transition practices for students with disabilities. The past three decades have been characterized by proposals of several theoretical and analytical models (e.g., Halpern, 1992; Wehman, Kregel, & Barcus, 1985; Will, 1984) to give attention to the subject of transition. The outcomes of these efforts have been critical in shaping research and policy related to employment and quality-of-life outcomes for adults. However, most of these models have failed to link theory with transition practices. In response to this concern, a model that provides a feasible framework for developing educational programs that represent a transition prospect for students with disabilities was developed and is known as the “Taxonomy for Transition Programming.” Hence, this model is utilized in this study. The model was developed in 1996 as a result of rigorous research by Paula Kohler and several colleagues (e.g., Kohler, 1993, 1996; Kohler, DeStefano, Wermuth, Grayson, & McGinty, 1994; Rusch, Kohler, & Hughes, 1992) who studied transition extensively for many years. Transition to adulthood is complex and consists of many variables. This model encourages a collaborative approach to transition planning and programming where teachers play a leading role as coordinators of transition activities. Studies before the 1990s did not adequately consider the importance and influence of a collaborative approach in the implementation of transition planning (Morningstar & Mazzotti, 2014).

Over the past 30 years, research on transition planning has shown that postsecondary outcomes of transition-age youth with disabilities are enhanced when there is collaborative work between educators, families, students, the community, as well as various organizations toward the implementation of a transition-focused education (Kohler, Gothberg, Fowler, & Coyle,

2016). The Taxonomy for Transition Programming is a model that gives direction on how to plan, organize, and evaluate educational transition services and programs. The model provides comprehensive practices noted from effective programs for the implementation of transition-focused education. There are five essential components of transition programming: student-focused planning, student development, interagency collaboration, program structure, and family involvement (Kohler, 1996; Kohler et al., 2016). Each of the five interrelated areas of Kohler's framework has specific activities that result in a positive outcome on the general effectiveness of transition programming. For example, student-focused planning involves IEP development and participation. Student-focused planning practices encompass developing a student's goals based on appropriate assessment data in order to inform planning, student involvement in the planning process and decision-making, and the evaluation of a student's progress in attaining their desired goals (Kohler & Field, 2003). Student-focused planning activities help students to develop and reinforce self-determination skills as they practice and apply these skills. It is necessary for educators during elementary and initial secondary education period to guide students through the process, while subsequently anticipating that students gain more proficiency as they advance through high school (Kohler & Rusch, 1996; Morningstar et al., 2010).

Student development focuses on such areas as giving instructions on life skills, vocational and career education, and structured work experiences. Student development practices also involve assessment of students and the provision of accommodations, which set the stage for the determination and evaluation of these learning experiences to ensure that they lead to successful transition (Kohler & Field, 2003). Student development activities help students to develop and utilize self-determination skills, academic skills, living skills, social skills, occupational skills, career awareness, as well as employment-related behaviors all of which are

linked with positive post-school outcomes (Test et al., 2009). To assist students to attain the optimal benefit as well as the ability to generalize the skills they learn across multiple settings, provision of these experiences occurs in school and community-based environments, including work-based contexts. A collaborative framework and service delivery fall under the interagency collaboration and promotes the participation of community businesses, organizations, and agencies in all domains of transition-focused educational planning. A collaborative service delivery is promoted through interagency agreements that explicitly communicate roles, responsibilities, methods of communication, as well as other collaborative steps that facilitate curriculum and program development and provision of services (Benz, Lindstrom, & Halpern, 1995; Kohler 1996).

Program structure emphasizes among other activities program policy, evaluation, and strategic planning. Program structure involves the delivery of transition-centered education and services efficiently and effectively, and this includes philosophy, planning and preparation, legislation and policy, assessment, and resource development (Kohler, 1996). A school's structures and characteristics set the foundation for the implementation of transition-focused education. Practices that facilitate outcome-oriented education and expanded curricular choices encompass a consideration of community experiences in strategic planning, responsiveness to culture and ethnicity, an explicitly defined mission and values, highly qualified school personnel, and adequate distribution of resources (Kohler, 1996; Kohler et al., 2016). Transition-focused schools also take into account a methodical community participation in the formulation of educational choices, community-based learning experiences, the methodic involvement of students in the school's social life, and enhanced expectations linked to skills, values, and students' learning outcomes (Edgar & Polloway, 1994; Mornigstar & Mazzotti, 2014).

Lastly, family involvement encompasses family participation, training, and empowerment concerning the delivery of education and transition services (Kohler, 1996). Family involvement practices involve a broad range of roles through which parents and families may participate in planning and delivery of individual and community-based transition services (e.g., assessment, decision-making, policy formulation, trainers) (Kohler & Field, 2003). Empowerment approaches incorporate practices that promote sound family participation in transition-focused educational activities, such as particular strategies for the identification of family needs. Family-focused training enhances family members' potential and the ability to partner effectively with educators and related service providers.

Beginning in 1990, as well as subsequent amendments of the IDEA in 1997 and 2004, secondary school transition requirements have indicated that special educators need to be involved in planning, coordination, and delivery of transition services for transition-age youths with disabilities (U.S. Department of Education, 2011). Transition planning and programming for learners with disabilities emanated from the concept of inclusive education. History indicated that students with disabilities were oppressed, institutionalized, and denied the opportunity to get involved in mainstream endeavors such as education and employment (Itkonen, 2007; Osgood, 2005; Rubin & Roessler, 2008). The history of people with disabilities in developed and developing nations is marked by harsh treatments, discrimination, negative stereotypes, and beliefs of this population. It was only in recent years that a shift in the past oppressive treatment of people with disabilities resulted in more humane treatments, acceptance, equality, respect, and dignity (Charlton, 1998; Shapiro, 1994).

Throughout the 1950s and 1960s, the Civil Rights Movement played a significant role in advocating for the constitutional protection of minorities to be given equal treatment and

opportunities, including education of those with disabilities (Yell, Rogers, & Rogers, 1998). The principle of normalization by Wolfensberger (1980) prohibited institutionalization, inequality, and segregation of children with disabling conditions from the mainstream society (Hughes & Carter, 2011). Several lawsuits led to the integration of students with disabilities into the mainstream society. For example, an important case *Brown v. Board of Education* (1954), resulted in significant changes regarding policies and strategies for the teaching/learning of students with special needs. Since then, numerous legal mandates were adopted which provided the legal framework for the education of students with disabilities. These included the Elementary and Secondary Education Act (ESEA) (P.L. 89-10) and the Handicapped Children's Early Education Assistance Act (P.L. 90-538) which came into effect in 1965 and 1968 respectively (Yell, 2011). Moreover, the Education for All Handicapped Children Act (EAHCA) of 1975 (P.L. 94-142), IDEA 1990 and subsequent amendments, the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) all provided a foundation for the education of students with disabilities.

Despite the IDEA provisions, students with disabilities, including those with visual impairments, continued to experience less successful post-school outcomes compared to their counterparts without disabilities (Newman, Wagner, Cameto, & Knokey, 2009). This disparity may have been partly a result of educators in secondary schools believing that they are not well prepared to plan and provide transition services (Li, Bassett, & Hutchison, 2009). The role of teachers is critical in coordinating the five areas of Kohler's 1996 transition model. Teachers' specific activities and practices in each area will impact on positive outcomes in the effectiveness of transition programming.

Applying the Taxonomy for Transition Programming model to this study, the researcher expected teachers' transition views, beliefs, and knowledge to influence the effectiveness of postsecondary transition planning and programming. Past studies have revealed that many secondary school educators have limited knowledge and skills, thus preventing them from successfully implementing effective transition programs (Benitez, Morningstar, & Frey, 2009; Knott & Asselin, 1999). Therefore, teachers who are not prepared to develop and implement transition programs may negatively impact on the poor post-school outcomes of youth with disabilities. Given the changing roles of secondary teachers, it is reasonable to contend that teachers' transition experiences and perceptions should be clearly understood if effective transition planning and services are to be provided. Unfortunately, secondary teachers have not been provided with explicit direction to develop high-quality strategies that equip them with appropriate knowledge and skills to enhance in-school and postsecondary outcomes for learners with disabilities (Morningstar & Mazzotti, 2014).

Purpose of Study

The main purpose of this study was to explore the experiences and views of secondary school teachers and vocational teachers in assisting students with disabilities to transition from secondary and vocational school to higher education and/or employment in Botswana. The study explored teachers' knowledge, beliefs, and perceptions about what practices and principles contributed to or impeded successful postsecondary education and/or employment outcomes of students with disabilities, specifically those with visual impairments at secondary schools. Through this study, information was obtained from general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers on their knowledge, experiences, and practices that resulted in successful post-school outcomes. The study focused

on how secondary students with disabilities were prepared to transition successfully to assume adult roles. It included students' preparation and planning for senior secondary school or technical, vocational education and training, postsecondary education, and employment. The study also aimed at exploring teachers' ideas and suggestions, as well as the kinds of barriers that impeded successful transition outcomes. Furthermore, the study examined the roles and efforts that teachers made in supporting students with disabilities to enjoy an improved quality of life. Both academic and functional curricula taught to students and other transition services aimed at improving postsecondary outcomes were explored.

An important objective of this study was to determine differences among school regions regarding the experiences and views of secondary school teachers and vocational teachers in helping students with visual impairments to transition from secondary school to higher education and/or employment. To meet this purpose, this study (a) explored teachers' knowledge, beliefs, and perceptions about best practices regarding successful postsecondary education and/or employment outcomes of students with visual impairments at secondary and vocational schools, (b) investigated the differences among teachers in different school regions as well as between general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers on programs and practices that resulted in successful post-school outcomes, and (c) based on the findings of the study, the researcher anticipated to assist in developing a framework for transition programs and services that would help in improving post-school outcomes for youths with disabilities. This study used work conducted by Dogbe (2015) with replication elements. Dogbe's dissertation research explored teachers' perceptions about transition programs for secondary students with disabilities in Ghana. Unlike Dogbe's study, the current study put a major emphasis on students with visual impairments and did not take into

account administrators' views; instead, it considered the views of guidance and counseling teachers as well as vocational teachers. Successful accomplishment of the purpose of the study involved examining differences between the dependent and independent variables.

Research Questions

To guide this study, a total of four research questions were formulated. Since Botswana has no legal mandate concerning secondary transition planning and programming, the overall views of respondents were explored first in primary questions, followed by secondary comparative questions that examined differences between different respondents about the transition process.

According to Simon (2011), the aim of asking comparative research questions is to help a researcher identify whether there are significant differences between two or more groups. Identification of group differences may rely on one or more variables. Although generally a comparative research question may be used to quantify a single variable, it may be credible to use two or more variables depending on the needs of the researcher if appropriate. For example, comparative research questions may begin by asking if there are differences between groups concerning a specific dependent variable (Durrheim, 1999; Simon, 2011). The key research questions for this study were:

1. Are secondary teachers in Botswana knowledgeable of transition planning and programming that helps to improve the post-school outcomes of students with disabilities?
 - a) Are there differences between special education, general, and guidance and counseling teachers in their knowledge concerning effective practices for the transition of secondary school students with disabilities in Botswana?

2. Are secondary and vocational teachers in Botswana helping students with disabilities to transition successfully to postsecondary and/employment environments?
 - a) Are there differences among secondary and vocational teachers between different school regions concerning transition preparation beliefs and perceptions for secondary and vocational school students with disabilities in Botswana?
3. Are there specific transition practices and services that prepare students with visual impairments for postsecondary education and/or employment in Botswana?
 - a) Are there differences among the beliefs and perceptions of general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers regarding transition practices for preparing students with visual impairments to have successful postsecondary education and/employment in Botswana?
4. Are there barriers that impede successful implementation of evidence-based transition practices for students with visual impairments in Botswana?
 - a) Are there differences between special, general, guidance and counseling teachers, and vocational teachers about their perceptions of barriers that impede successful implementation of evidence-based practices for students with visual impairments in Botswana?

Significance of the Study

There is a paucity of empirical research regarding the transition of youths with visual impairments from secondary school to postsecondary education and/or employment. Moreover, a considerable number of studies that have been conducted among transition-age youths consider all disability categories (National Council on Disability, 2000). The few studies that have been conducted on transition-age youths with disabilities or visual impairments have addressed best

practices from a policy perspective and inadequately considered teachers' perspectives. Reed and Curtis (2011) indicated that even though teachers bear the responsibility of preparing students with visual impairments for post-school outcomes, it is surprising that little attention has been given to their views about transition planning and preparation. By examining teachers' views about transition planning, it was intended that this study would add to the scholarly research and literature in the field of special education. The researcher envisaged that the study would contribute to an understanding of evidence-based practices that help secondary school students with visual impairments to have improved post-school outcomes. Few research studies have been conducted to investigate the beliefs, perceptions, needs, desires, dreams, and frustrations of teachers to identify and investigate their thoughts and feelings about the factors that can and do support students with visual impairments to have successful postsecondary outcomes such as higher education and/or employment. This study, therefore, aimed to understand and increase the current knowledge base by conducting a survey to identify teachers' transition practices and make a clear distinction between what they are currently doing and what is ideal in helping students to have positive transition outcomes.

Possible gains of this study included a contribution to an enhanced understanding of teachers' perceptions and the elements that contribute to or act as obstacles to their fidelity in the implementation of transition services. An enhanced understanding of the elements that contribute to or act as obstacles to effective implementation of transition services by teachers could help secondary schools to identify, prepare, and provide support and services to improve post-school outcomes for transition-age youths with visual impairments. Furthermore, this knowledge could help secondary schools, which are providing or considering the provision of effective transition services, to attract, train, and retain endowed teachers who can collaborate more effectively with

other teachers and professionals to ensure a successful transition. Consequently, knowledge of best practices regarding transition planning for youth with visual impairments can go a long way in informing special education policy in Botswana, which currently does not adequately address transition for individuals with disabilities.

Basic Assumptions

One of the assumptions of this study was that despite the lack of a legal mandate for transition planning in Botswana, teachers in public secondary schools engaged in some form of uncoordinated transition service provision for students with disabilities. However, the researcher also acknowledged that not all teachers would be familiar with effective transition planning and service provision methods. Thus, students with disabilities would likely not be sufficiently supported to prepare them for successful postsecondary outcomes. The researcher assumed that not all teachers had a basic understanding of the legal and conceptual framework purported by the United States special education models and mandates, thereby calling for an explanation from the researcher to the participants of this study. The researcher considered the notion that teacher training and preparation programs in the country may not adequately equip teachers with the necessary skills and knowledge to help students assume adult roles successfully. The researcher also assumed that even though some teachers who may have received training from other countries were fully aware of the need for effective transition planning strategies, there was a shortage of resources to support their efforts. Given the current education of students with disabilities in Botswana, the researcher assumed that pre-service and in-service teacher training programs needed to be reviewed to align with the transition needs of students. The researcher also assumed that some teachers lacked interest in the education of students with disabilities thereby being less concerned about students' post-school outcomes. Despite the importance of

parent involvement in their children's education, it was also assumed that parents had little or no significant roles in the transition planning process. In the event that good transition plans were prepared, it was assumed that the school environments were not enabled to implement such plans successfully.

Delimitations

Due to limited empirical research concerning transition-age youths with visual impairments in developed and developing countries, as well as attempting to inform policy on the improvement of transition standards, the location of this study was two education regions in Botswana. The participants of the study were secondary school teachers and vocational teachers. The views of general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers were obtained. Teachers were surveyed regarding their perceptions about secondary school transition planning and practices that lead to successful postsecondary education and/or employment of youths with visual impairments. As a developing country, Botswana has not developed special education transition policies and practices to the same degree as developed countries. This means that the generalizability of the results could be limited.

Definition of Terms and Acronyms

Visual impairment. “Visual impairment, including blindness means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness” (34 C.F.R § 300.8 (c) (13), 2004).

Transition. Refers to the changes in a person's life, adjustments, and cumulative experiences that take place in youths as they progress from one stage of life to another (e.g., from

school environments to postsecondary education, employment and independent living) (Wehman, 2006).

Transition planning. This is a process for all students who have an Individualized Education Program (IEP) in kindergarten to high school education aimed at facilitating students' movement from school to post-school activities (IDEA, 2004).

Transition services. Transition services are a coordinated set of activities for a child having a disability that:

(A) is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation

(B) is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and

(C) includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation. (34 C.F.R § 300.43 (a), 2004)

Post-school outcome. The use of this term in this study refers to the products that result from failing or being successful in secondary school. It means being able to enroll in postsecondary education or not, being able to secure employment or not, as well as being able to live independently or not (Kochhar-Bryant & Greene, 2009).

Success. The use of this term as used in this study refers to a person's ability to access one or all of the major transition outcomes namely, postsecondary education, employment, and independent living as a result of effective educational supports. It implies a person's ability to show good performance in the domains of academics, vocational training, social skills, and to function competently as an adult in one's community (Martin et al., 2006).

Self-determination. Self-determination is defined as the blending of a person's skills, knowledge, and beliefs that give him/her the ability to engage in goal-oriented, self-regulated, and independent behavior (Algozzine, Browder, Karvonen, Test, & Wood, 2001). An example of a student with self-determination skills is one who can make choices, provide a solution to problems, set goals, assess options, make efforts to attain one's goals, and take responsibility for one's actions (Rowe et al., 2013; Wehmeyer, 2001).

Collaboration. Engagement of teachers, the student, parents or guardians, the community, and agencies in all areas of transition-focused planning to explicitly define participants' roles, responsibilities, and communication methods, as well as other collaborative efforts to improve curriculum, program structure, and delivery of services (Field & Kohler, 2003).

Assistive technology device. Refers to "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability" (34 C.F.R § 1401(1)(A)). An assistive technology device should impact a child with a disability's functioning. An example is a Closed Circuit Television (CCTV) which enables a child with a visual impairment to read regular print materials thereby leading to an improvement in his/her ability to complete school work.

Orientation and mobility. Refers to the process of using a person's senses to establish his/her position in relation to the environment and objects within (orientation), as well as the person's ability and readiness to move about his/her environment safely and freely (mobility) (Hill, 1986). An example is the use of a white cane to increase the ability of a student with a

visual impairment to move around the school environment and classroom to participate in school activities.

Junior secondary school. This term refers to the first three years of secondary education following completion of primary (elementary) standard/grade seven. It is comparable to the United States middle school (MOESD, 2015). In Botswana, junior secondary education forms part of basic education.

Senior secondary school. This term refers to the secondary school education which follows after completion of junior secondary school and takes two years (MOESD, 2015). This level of secondary education in Botswana is comparable to the United States high school education. After completing senior secondary school, students may enroll for vocational training, postsecondary education, or employment depending on the outcomes of the final senior school year examination.

JCE. This acronym refers to the final junior secondary school examinations that students sit for at the end of the third year of the junior secondary education program (MOESD, 2015). It is a national examination organized by the Botswana Examinations Council (BEC) for all public junior secondary schools in Botswana.

BGCSE. This acronym refers to the final senior secondary school examinations that students sit for at the end of the second year of the junior secondary education program (MOESD, 2015). It is a national examination organized by the Botswana Examinations Council (BEC) for all public senior secondary schools in Botswana.

MOESD. This acronym stands for the Ministry of Education and Skills Development in Botswana.

NPE. This acronym stands for the National Policy on Education of 1977 in Botswana.

RNPE. This acronym stands for the Revised National Policy on Education of 1994.

JCE. This acronym stands for the Junior Certificate of Education.

BGCSE. This acronym stands for Botswana General Certificate of Secondary Education.

Summary

This chapter provided an overview of postsecondary transition planning and post-school outcomes for students with disabilities. It gives information about what is currently known in the literature as well as gaps that still need to be filled. The chapter specifically focused on the research problem, purpose of the study, and its significance. In a time where economies around the world are not very stable, it is more difficult for youths to have successful post-school outcomes. It has been documented that youths with disabilities experience more challenges concerning their preparation for postsecondary education and/or employment. The role of teachers is critical toward supporting the success of youth with disabilities during the transition to adulthood. It is, therefore, important to consider their practices, experiences, as well as challenges they encounter as they work in the transition planning process.

The next chapter provides a review of the literature that is relevant to the research study. A brief review of postsecondary transition planning and programming for students with disabilities is provided. Also, a review of best practices regarding transition planning for secondary school students with visual impairments is provided, along with the transition process and challenges in Botswana.

CHAPTER 2 – LITERATURE REVIEW

This chapter consists of a review of the literature concerning transition programming for secondary school students with disabilities. Background literature related to transition planning and programming for improving post-school outcomes for youth with disabilities is examined. The literature review provides a footing on the study's research questions. Several sections are included in this chapter. The chapter begins with an overview of transition for students with disabilities in the United States, effective transition practices and interventions for students with visual impairments, an overview of the education sector and special education in Botswana, and transition in Botswana.

Search Methods

Computer-assisted searches were conducted on the Ball State University Library databases to gain access to relevant literature for this study. The databases and electronic resources that were most fruitful included ERIC EBSCO host, Academic Search Premier, Web of Science, World Cart, Card Cart, and Google Scholar. The researcher mainly focused on peer reviewed scholarly journal articles, although books and national reports were also considered. Doctoral dissertations regarding transition were searched from ProQuest. Moreover, the search terms that were used included: teachers' views, teachers' perspectives, transition programs, transition planning, transition services, transition outcomes, visual impairment, special education transition, postsecondary planning, post-school outcomes, high school interventions, inclusive education, and special education in Botswana. These search terms and phrases yielded more than two hundred scholarly publications upon which the literature review of this study was based.

Postsecondary School Transition Overview

There are many transitions that happen in a person's life across many areas. One important transition area relates to education. For example, students may transition from kindergarten to preschool, from preschool to elementary school, elementary to secondary education, and from secondary to postsecondary education or employment. Although all transition stages are important, one of the most significant transitions is when students transition from high school to adulthood. Graduation from high school is usually followed by a series of changes and challenges coupled with hopes of successfully moving from high school to adult roles such as employment, enrollment in postsecondary education, or both. According to Halpern (1992), postsecondary school transition is an unsteady season that is experienced for at least the first few years following completion of high school as youth endeavor to engage in various adult roles within their respective communities. It is, however, worth noting that the unsteady season may last for several more years for students with disabilities, which has been documented by various studies on postsecondary transition outcomes for youths with disabilities since the 1980s. For example, Hasazi, Gordon, and Roe (1985) examined 462 adolescents as they moved from high school to adult roles between 1979 and 1983. The population of the study was from nine school districts in Vermont, and the results indicated that of the 55% of youths who secured paid employment, only 67% had full-time employment. Among high school graduates, 72% had financial earnings below \$5.00/hour; whereas, among high school drop-outs, more than 84% had earnings below \$5.00/hour. Although there was some progress during the 1990s and early 2000s, youths with disabilities whose ages ranged between 18 and 29 had an employment rate of only 57% in comparison to a 72% employment rate for their counterparts without disabilities (National Organization on Disability, 2004). According to Fabian, Lent, and Willis (1998),

students with disabilities who graduated still lagged behind their counterparts without disabilities regarding securing competitive employment by 50% to 69%, three to five years following graduation. In addition, when considering all people with disabilities representative of all ages of employment, those who reported securing full- or part-time employment were only 35% of the population compared to 78% of those having no disabilities (National Organization on Disability, 2004).

Despite the fact that there have been slight expansions of post-school outcomes for adolescents with disabilities over time, the need for improvement in such areas as employment, education, and independent living cannot be ignored. Thus, it is important to proceed with the examination of secondary education programs that result in better postsecondary school outcomes for adolescents with disabilities (Wagner, Newman, Cameto, Levine, & Garza, 2006). Consequently, one of the most daunting tasks encountered by educators who are interested in development and implementation of transition programs geared toward improving the postsecondary school outcomes for students is to consider the practices that result in improved postsecondary school outcomes for students with disabilities. Researchers in the area of secondary transition have attempted to provide this solution dating as far back as the introduction of Will's (1984) bridges model of transition.

Transition Planning Models

The transition movement started as an initiative by the federal government in 1984 (Whetstone & Browning, 2002). The then Assistant Secretary of the U.S. Office of Special Education and Rehabilitative Services (OSERS), Madeleine Will, in the "Bridges" model referred to transition as an outcome-oriented process that involved a wide range of services and experiences that resulted in employment (Will, 1984). Will defined transition as a phase that

included high school education, graduation period, further postsecondary education or adult services, and the beginning years of the employment experience. Thus, she saw transition as a bridge between the security and the school structure as well as the uncertainties of life. As part of this model, three distinct levels of services or ways of crossing the bridge were identified (i.e., no provision of special services during transition, provision of time-limited transition services, and provision of ongoing transition services) for individuals with disabilities to obtain their desired employment outcome. The model began with the assumption that a strong foundation of functional curricula was necessary as students crossed one of the three support levels, depending upon their need for additional training and support.

Will's definition of transition was broadened by Halpern (1985) to take into account community adjustment as an important outcome for adults. In his "Community Adjustment" model, Halpern also advanced a more comprehensive path to transition that encompassed three important elements namely employment, residential adjustment, and the foundation of helpful social and interpersonal networks. In playing a part to the quality of life of individuals with disabilities, Halpern (1985) proposed that transition programs be built upon these three connected elements to establish a strong foundation for required support services. Consequent to much discussion, Halpern's model was widely accepted as the foundational structure for the definition of transition services in IDEA, resulting in community participation and living, as well as employment (Johnson & Rusch, 1993). Halpern (1989) further suggested that enhancement of community adjustment required the development of personal factors such as an individual's self-esteem and empowerment of individuals to choose their goals and take decisive actions. Halpern's model of transition helped the developers of transition programs to pay attention to a wider range of desired student outcomes.

Furthermore, in 1989, a leader in the field of transition named Brolin indicated that transitions took place throughout a person's lifespan and that they involve paid work and students' work roles, homemakers, involvement of family members, volunteer workers, and retirees, including fruitful recreation, hobbies, and leisure activities (Brolin & Schatzman, 1989). According to Brolin and Schatzman (1989), the majority of people faced difficulties when making different transitions. For example, many adults with disabilities in the transition process sometimes encounter confusion and require special assistance to enable them to solve their concerns as well as make appropriate decisions. Thus, the notion of transitioning from school to work is intricately linked to the career development principle that people have theorized and implemented in different education and agency contexts for a long period.

Brolin's transition model was expanded further using the bridge model by linkage of elementary and secondary school students to employment, community participation, integration, and social ties (Brolin, 1993). He noted several key elements that required effective implementation during successful transition services provision. These elements included: "interagency cooperation; individualized transition plans; employer incentives; supported employment (for some individuals); a functional career curriculum; collaborative efforts with employers, agencies, and parents; and a postsecondary support and follow-up system to ensure community and job adjustment" (Brolin, 1995, p. 207).

Although the transition models mentioned above have set the foundation for the transition of students with disabilities, many of these models focused on the transition of these students from a particular service system to another such as from the education system to adult participation in the community. The growing knowledge of the intricacies surrounding effective transition practices led to broader conceptualizations of the transition planning process and

service provision. Kohler (1996) viewed transition planning as an important basis for education that gave direction to the development of all education programs, and did not see transition planning as a supplemental activity. The notion of transition-focused education illustrated a change from disability-focused planning, programs driven by students' deficits, to an education and service-delivery system founded on students' strengths, choices, and self-determination (Kohler & Rusch, 1996; Kohler et al., 2016). As previously indicated, the "Taxonomy for Transition Programming" model provides a comprehensive, conceptual framework of practices upon which transition-focused education and delivery of services are based. Hence the reason for framing the current study around this transition model.

Postsecondary Transition for Students with Disabilities

People with disabilities have been found to be employed at a much lower rate than those without disabilities (Sabbatino & Macrine, 2007). Federal legislation calls for schools to work collaboratively with students and parents to develop transition plans as well as make plans to ensure that students find employment after graduation. However, it is troubling that transition plans do not often lead to successful employment. A critical strategy for students with disabilities is provided with opportunities to learn academic, social, and vocational skills needed to succeed in today's world in the context of their communities.

Often students with disabilities are worried and uncertain about whether they will have successful post-school outcomes. A considerable number of students with social, emotional, behavioral, intellectual, or developmental disabilities recognized that the education they received in today's schools failed to provide them with appropriate skills that resulted in self-determined, self-sufficient, and independent lives (Cook, 2002; Frank & Sitlington, 2000; National Organization on Disability, 2004). Successfully transitioning from school to employment is a

fundamental objective of the education of all students. It was of great concern that when students did not have a well-defined transition program before appropriate training, a large number of students with disabilities failed to attain the goal of engaging in productive work, and this resulted in being unemployed (Blackorby & Wagner, 1996; Brooke, Revell, & Wehman, 2009; Cobb et al., 2013; National Organization on Disability, 2004). In general, federal legislation has been the basis of special education and transition for students with disabilities over the previous decades as discussed below.

Historical Perspectives of Special Education and Current Legislation

People with disabilities have suffered discrimination since ancient times. The history of people with disabilities is characterized by a denial of fundamental human and civil rights. They were subjected to unequal opportunities across all domains of life. Inhumane treatments and institutionalization were the order of the day (Rubin & Roessler, 2008). Thus, having a disability attracted harsh treatment, abuse, and neglect. Regarding public education, children and youth with disabilities were subjected to unequal treatments. It was the 20th century that marked a turning point in the lives of people with disabilities, and federal legislation led to a shift in the harsh treatment of people with disabilities, especially those with intellectual and developmental disabilities, as well as their families (Rubin & Roessler, 2008). During the early years of this century, different states in the United States began to enact compulsory attendance laws, and this led to a change in the educational opportunities for students with disabilities (Yell et al., 1998). Although there were increased opportunities for admittance of students to public schools, many did not receive an effective or appropriate education. During the end of the 1960s and beginning of the 1970s, parents and advocates for learners with disabilities utilized the courts to pressurize

states so that they provided equal educational opportunities for these individuals. The success of these efforts consequently resulted in the passage of federal legislation to guarantee these rights.

It was in 1975 that federal legislation integrated the different segments of state and federal legislation into a broad law concerning the education of individuals with disabilities. The Education for All Handicapped Children Act of 1975, P.L. 94-142 (EAHCA) was passed by Congress and signed into law. This was a historic change in the government's perception of the education of students with disabilities that was possible because of the chronicle of case law and legislation that occurred before the EAHCA. The Civil Rights Movement was a crucial event that preceded the state and federal legislation as well as case law concerning the education of children with disabilities. It is worth noting that all citizens have not always received the civil rights that the United States Constitution provides and enforcement by legislation on an equal basis. During the 1950s and 1960s, the Civil Rights Movement requested societal changes in order to allow minority groups, especially African-Americans, to have equal opportunities (Yell et al., 1998). These efforts led to litigation and shifts in legislation. The legislation warranted enhanced constitutional protection for minority groups and ultimately individuals with disabilities. A notable case, *Brown v. Board of Education* (1954), was a significant achievement for the Civil Rights Movement and continued to be an important foundation for other civil rights work. The *Brown* decision led to an enormous effect on the rights of the society for minorities, as well as impacted several elements of educational law and policy (Turnbull, 1993). Despite the fact that it took time, the example set by *Brown* led to expanded alterations in the schools' policies and strategies for educating students with disabilities.

When EAHCA was amended in 1990, it was re-named the Individuals with Disabilities Education Act (IDEA). Significant changes included in this law were (a) changing the language

of the law to stress the person first, including altering the name of the law to IDEA, as well as advancing the use of the terms child/student/individual instead of handicapped student and handicapped; (b) children diagnosed with autism and traumatic brain injury (TBI) were noted as set apart and a distinct category privileged with the law's benefits; and (c) requirement of a transition plan for inclusion on all student's IEP by their sixteenth birthday (Yell et al., 1998).

Before the IDEA amendment of 1997, legislation like the School-to-Work Opportunities Act of 1994 was passed to prepare all students to overcome barriers as they transitioned from school to employment (Crindle, 1998). Regarding transition, the IDEA amendment and reauthorization of 1997 (P.L. 105-17) required planning for the transition of all students having disabilities to start by their fourteenth birthday or earlier as necessary through course preparation. Moreover, the legislation required identification of appropriate transition services in each student's IEP by the sixteenth birthday. Also, the IDEA mandated a statement of interagency commitments and connections to make it a point that services continued following students with disabilities exiting school (Wittenburg, Golden, & Fishman, 2002). In the IDEA 2004, the aim of Congress was to increase the attention on accountability and enhanced outcomes by underscoring reading, early intervention, and the implementation of evidence-based instruction by indicating the need for special educators to be highly qualified. The primary goals of the IDEA 2004 were to ensure that the unique educational needs of a child with a disability are met as well as preparation of the child to further his/her education, engage in employment, and independent living (Wright & Wright, 2007). Additionally, this law sought to continue protecting the rights of children having disabilities and their parents. IDEA (2004) defined transition services as integrated sets of activities that aimed at promoting the academic as well as the functional achievements of students and expediting the journey from school to post-school activities. These activities may

include post-school education, vocational training, employment, and independent living. Studies on the transition of youth with disabilities have reported the importance of an enhanced focus on accountability of schools and transition planning (Crindle, 1998; Cook, 2002; Frank & Sitlington, 2000; National Organization on Disability, 2000). As per legislation, educational agencies were required to record academic attainments and transition benchmarks, as well as work and independent living (Rubin & Roessler, 2008; Sabbatino & Macrine, 2007). Thus, agency administrators document transition services in each learner's Individualized Transition Plan (ITP), mostly during IEP meetings. During these meetings, parents are required to attend, participate, and include the student. Through this process, students and parents are given a chance to reflect on the future, indicate preferences, share concerns and hopes, and be part of the decision-making process that absolutely impacts on the future of each student (Cook; Frank & Sitlington; Lichtenstein & Michaelides, 1993; Wittenburg et al., 2002).

Important secondary transition changes concerning the IEP requirements in the IDEA 2004 included (a) relevant, measurable postsecondary goals that rested on age-appropriate transition evaluations associated with training, education, employment, and independent living skills; (b) transition services which include courses required to help the child to attain those goals; and (c) starting not later than a year prior to the child reaching the age of majority in accordance with state laws, a statement indicating the child having been informed of his/her rights (U.S. Department of Education, 2007).

Other significant legislations such as the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) are civil rights laws which were passed to protect individuals with disabilities against discrimination across various sectors of society. The Rehabilitation Act of 1973 (P.L. 93-112) was passed to make it a point that individuals with disabilities received the

necessary empowerment to “maximize employment, economic self-sufficiency, independence, and integration and inclusion into society” (U.S. Department of Education, n.d.). The purpose was to ensure the achievement of this objective through statewide workforce investment programs, sound vocational rehabilitation programs, research, training, independent living services and centers, demonstration projects and equal opportunities assurance. The act also aimed at ensuring that the federal government assumed a leading role regarding the employment of individuals with disabilities, particularly those with significant disabilities, including the assistance of states and service providers to successfully address the needs and aspirations of people with disabilities by helping them to secure employment that is meaningful, gainful, as well as achievement of independent living. The goal of the Rehabilitation Act of 1973 and its subsequent amendments was to “serve persons with severe disabilities, promote consumer involvement, stress program evaluation, provide support for research, and advance the civil rights of persons with disabilities” (Rubin & Roessler, 2008, p. 47). A notable act of this law is Section 504 which prevents the exclusion of qualified persons with disabilities from all federal programs or activities funded by the federal government based on their disability (Rehabilitation Act of 1973, n.d.). This implies that qualified persons with disabilities should not be excluded from programs or activities that day care centers, school districts, postsecondary education institutions (e.g., colleges or universities), hospitals and other institutions provide. A significant approach to overcome barriers is to ensure the provision of appropriate accommodations. It is imperative to understand that a person with a disability cannot be designated as ineligible for services under Section 504 without a determination of whether the person would be eligible when provided with reasonable accommodations.

The ADA, as a civil rights law, also seeks to eradicate discrimination against individuals with disabilities and provides explicit and comprehensive regulations that can be enforced in order to eliminate discrimination against people with disabilities. The purpose of the ADA amendment of 2008 was the restoration of the purpose and protections of the ADA of 1990. The law prevents discrimination of people with disabilities in areas such as employment, transportation, public accommodations, telecommunications, state and local government services, and miscellaneous services (ADA, 2008). Title 42 Subchapter II of the ADA is made up of two parts which are Subtitle A and Subtitle B. Consistent with Section 504 of the Rehabilitation Act of 1973, subtitle A discourages discrimination of individuals with disabilities in public entities' programs and activities funded by the federal government (ADA, 2008). However, in contrast to section 504, Subtitle A further includes those entities that are not funded by the federal government such as licensing bureaus, legislative institutions, and courts. Individuals with disabilities are expected to have equal opportunities for accessing state and federal programs and services. For example, if an individual with deafness is not provided with an interpreter during a council meeting, this is tantamount to failing to comply with the ADA requirements. Hence, public entities are to regard reasonable accommodations in their practices, policies, and adopt structural modifications so as to avoid discrimination of people with disabilities.

Secondary Transition Planning Process

Transition planning is the process that helps students, parents, and school staff as they engage in discussions, planning, and decision-making about the transition from school to the assumption of adult roles (Mississippi Department of Education, 2016). Transition planning encompasses the assessment of a student's preferences and strengths, deciding on transition

goals and objectives, and selection of the program of study and exit option, as well as the types of services and agency connections that students with disabilities require to achieve their transitional goals (Mazzotti et al., 2009; Test, Aspel, & Everson, 2006). Transition planning can start at an early stage when children are at elementary school. It is imperative that school staff start the planning process with students and their parents to engage in discussions about the student's educational progress and needs, taking into account the student's expectations and ambitions (Rowe, Mazzotti, Hirano, & Alverson, 2015). Also, the process needs to take into account discussions regarding future goals and appropriate skills for supporting the transition goals.

During middle school, it is critically important that school personnel start utilizing career assessments to determine the career preferences, strengths, and needs of the student. The purpose of the assessment data is to assist in developing appropriate transition programming and the courses of study that aim at preparing the learner to attain desired post-school goals (Walker, Kortering, & Fowler, 2007; Walker, Kortering, Fowler, Rowe, & Bethune, 2013). To meet this purpose, public agencies or schools need to provide information to students and parents concerning various diploma/exit choices for students who have disabilities. As an ongoing process, transition planning is more likely to change over time, based on the strengths, preferences, and abilities of a student. There needs to be further discussions and sharing of information during the IEP meeting held before the student's entrance into ninth grade (Mississippi Department of Education, 2016; Storms, O'leary, & Williams, 2000).

There are several steps involved in the secondary transition planning process. The initial step involves the determination of a student's measurable postsecondary goals. An important IDEA 2004 requirement is that school districts need to make a determination of the student's

postsecondary goals regarding employment, education or training, and independent living skills from the basis of age-appropriate assessments (i.e., when appropriate) (National Center on Secondary Education and Transition, 2007). Measurable postsecondary goals are the outcome desired by the student that will take place following the student's exit from high school and help to provide an answer to what the student intends to do following his or her graduation in the domains of employment, education or training, and independent living skills. It is crucial that the IEP team engages in reviewing a student's postsecondary goals on an annual basis and makes appropriate revisions depending on the student's strength, preferences, and interests (Mazzotti et al., 2009; Storms et al., 2000). The transition planning process also involves the determination of a student's current levels of academic achievement and functional performance. These present levels of functional performance and academic achievement help the IEP team to get a picture of a student's strengths during the IEP development time. It is also the responsibility of the IEP team to determine the student's strengths and needs with respect to what the student plans on accomplishing after leaving high school. At this stage, age-appropriate assessment results that were utilized to determine areas of a student's strengths and needs are worth including. It is imperative that the student's functional performance be related to desired postsecondary goals founded on age-appropriate assessments (Rowe et al., 2015; Walker et al., 2007; Walker et al., 2013).

The identification of transition services is an important step in the transition planning process. According to IDEA (2004), the IEP team is required to establish a "coordinated set of activities" in order to enhance the transition of a student from school to post-school adult life in the domains of instruction, related services, community living, employment development and other post-school outcomes, and daily living skills training and functional vocational

assessments. The instruction domain relates to the IEP team identification of the need for the student to be provided in particular areas to complete required courses and to perform successfully in the general education curriculum (e.g., accommodations provision, tutoring). Regarding related services, the student's needs to engage in post-high school activities are identified (e.g., medical services, transportation). Community experiences that the student will receive outside of school perimeters are also worth considering by the IEP team (e.g., supported employment, job shadowing, postsecondary environments tours) (Morningstar & Mazzotti, 2014). A student's employment and other postsecondary needs that will help him or her to successfully achieve desired post-school outcomes also need to be addressed (e.g., career planning strategies, registration to vote). In addition, it is important to help the student with a disability to acquire daily living skills that will assist him or her to function independently as well as conduct a functional vocational assessment to gather information concerning career aspiration, aptitudes, and skills (Rowe et al., 2015; Sitlington & Payne, 2004). A student's transition services need to be linked to his or her postsecondary goals as well as current levels of academic achievement and functional performance (Transition Services Liaison Project, 2009).

The development of measurable annual goals should be underscored in the transition planning process. Capizzi (2006) discussed the importance of writing measurable academic IEP goals for learners with disabilities and stressed the significance of utilizing assessment as the basis for formulating these goals. In students' IEPs that involve transition, it is the duty of the IEP team to identify and relate the goals to students' measurable post-school goals. A student's annual goals linked to transition services he or she is provided with can be transition-linked academic or transition-skill goals (Transition Services Liaison Project, 2009). Transition-linked academic goals refer to the kinds of goals that are meant to address the disability category in

which the student is eligible for services while transition-skill goals relate to a student's specific transition needs. Evidence suggested that best practices for addressing a student's secondary transition involved among others a person-centered planning strategy (Kohler, 1996; Morningstar & Mazzotti, 2014). Person-centered planning refers to an individualized strategy that assists an individual with a disability to discover what he or she wants. This is a transformational plan that moves a person from an approach aimed at fixing or solving problems to one that is geared towards the provision of opportunities, opening doors for self-actualization, individual freedom, meaningful interdependence, and community participation (Farkas, Cohen, Howe, & Pierce, 2011). In general, it can be said that the main goal of transition planning is to ensure that students' postsecondary goals are clearly defined through assessment and definition of their abilities, needs, and aspirations so as to formulate an appropriate curricular plan that encompasses academic, functional, and community-based instruction required to achieve postsecondary goals (Test et al. 2006). Transition assessment is a critical component of the transition planning process which is discussed in the section that follows.

Assessment for Transition Planning

Many professionals in the area of special education do not have a clear understanding of the term transition assessment. Despite the need for all secondary students to be prepared and ready for college and career, evidence suggested that educators are not familiar with the transition assessment process (Rowe et al., 2015). The million-dollar question in the implementation of transition assessment becomes whether or not transition is clearly understood. Beginning in the mid-1980s, when the term transition assessment initially became familiar, authors have made several attempts to come up with its definition, explanation, and modification (Clark, 2007). The significance of these definitions and explanations lie not only in

communicating with one another in special education, but also with students, parents, families, and other professionals and stakeholders outside the field.

Clark (2007) defined transition assessment as a process in which information was obtained, organized, and used to help all persons with disabilities, regardless of age, and their families to make all crucial life transitions both successful and satisfying. Two transition events have been proposed namely vertical and horizontal transition events that occur in the life of an individual (Patton & Dunn, 1998). Vertical transition events refer to age and developmentally appropriate events or benchmarks in a person's life through which the majority of people pass. For example, transitioning from being an infant to a toddler, preschooler to an elementary school-age child, elementary school-age child to secondary school-age child, and likewise up through adulthood and old age. Many vertical transition events are natural occurring life events that can be anticipated. In contrast, horizontal transition events relate to change events that take place within each of the vertical transition phases, and which need some form of modifications. Some of these transition events are intentionally developed or selected (e.g., movement to a new location, taking a particular job, enrolling for postsecondary education). There are other events that occur unexpectedly or are "forced" on persons by chance or due to external circumstances and pressures (e.g., death, divorce, poor health, accidents). For example, it would be critical for an adolescent to make significant horizontal transitions in his or her life goals if there is a permanently disabling condition. Regarding vertical and horizontal transitions, success or satisfaction varies according to an individual's goals and the degree to which those goals are attained. For most individuals, there may be a feeling of success in a specific transition event such as obtaining a new job, assuming a new role or a new status, provided the achievement of their prior goals were linked to that event or if there was satisfaction from the process and/or the

outcomes (Clark, 2007). In a good transition assessment, an individual's goals, as well as expectations for a transition stage or event, are considered. Also, a good transition assessment provides suggestions regarding planning areas, preparation requirements, or decision making geared towards increasing the probability of attaining and being satisfied with set goals and expectations. That is, the purpose of vertical and horizontal transitions assessment is to assist students with disabilities and their families in defining goals pertaining to all of the student's transition needs across his or her life.

Transition assessment is an organized, coordinated effort that encompasses gathering data about students' strengths, preferences, and interests concerning their postsecondary goals (Sitlington, Neubert, Begun, Lombard & Leconte, 2007; Walker et al., 2007). IDEA 2004 called for each student's postsecondary goals to be founded on age-appropriate transition assessments linked to training, education, work and independent living skills (IDEA, 2004). Thus, a student's needs, preferences, interests and abilities need to be identified with respect to postsecondary goals. In other words, transition assessment serves as the common thread in the transition process and forms the foundation for the definition of goals and services that have to be included in a student's IEP. Transition assessment should help students to answer questions related to their present educational status; their long-term goals, activities, and strategies; the course of study; and the supports that will help students to reach their goals. Transition assessment practices should be individualized to address each student's unique needs, be ongoing and continuous, and include an explicitly defined goal (Flexer, 2001; Flexer, Simmons, Luft, & Baer, 2008; Sitlington & Payne, 2004). Four important areas need to be considered in the transition assessment process: academic achievement, self-determination, vocational ambitions, as well as adaptive and independent living skills (Walker et al., 2013). The types of transition

assessments include behavioral assessments, aptitude assessments, interest and work values inventories, intelligence and achievement tests, preference tests, career readiness tests, self-determination assessments, and transition planning inventories (Browder, 2001; Flexer, 2001).

According to Walker et al. (2007), the majority of states advocated for the use of a combination of the several types of transition assessments such as paper and pencil tests, structured interviews for students and their families, work-based assessments, as well as curriculum-based assessments. These assessments can be classified into two general types, namely formal and informal assessments. Formal assessments refer to standardized instruments with prior subjection to testing and with data that demonstrate that they have good reliability and validity measures (Browder, 2001). In contrast, informal assessments typically do not have formal reliability and validity measures. It takes more subjectivity for completion of these assessments and they need to be given several times and by several persons to increase their validity.

An important framework for the transition assessment process involves incorporating various strategies for assessment of students and potential environments (Sitlington, Neubert, Begun, Lombard, & LeConte, 1996). Analyses of assessment results assist educators in making decisions regarding the matching of a student with a potential environment. The goal of the framework is the identification of post-school choices that correspond to students' interests, preferences, and needs. Another useful transition assessment framework was outlined by Rojewski (2002) which included three levels of assessment. According to Rojewski, most students fall under level one, and this level may involve reviewing of a student's existing information such as current intelligence and achievement data, student interview, interest assessment, preference assessment, and aptitude testing as appropriate. A level two assessment

mainly focuses on students who experience difficulties in making a career choice or clearly defining their interests, preparation for adulthood, or considering leaving school before graduation. Moreover, level two would also include assessments focusing on information about an individual's work-related behaviors, career maturity, as well as job readiness. The level three assessment would be meant for students who require additional help with the identification of long-term career goals, in case initial transition assessments were indecisive, or for students who have more significant disabilities. Level three typically takes numerous days, and a vocational assessment specialist is responsible for conducting the assessment (Sarkees-Wircenski & Scott, 1995).

There are many reasons for conducting transition assessments. A transition assessment may be undertaken for the development of IEP goals and objectives concerning the transition aspect of the IEP. It may also be conducted to make appropriate decisions about instructional programming, as well as to provide information on the student's present performance level linked to his or her interests, preferences, and needs. Furthermore, transition assessment is an exceptionally good way of learning about each student, particularly the strengths he or she has beyond academics and career aspirations (Kortering, Sitlington, & Braziel, 2004).

The results of transition assessments are useful in deciding recommendations for instructional approaches, instructional modifications and accommodations, and settings to match the student's strengths, preferences, and needs. The results also serve to assist students in establishing a relationship between their academic program and post-school aspirations.

Secondary School Practices Associated with Successful Postsecondary Outcomes for Students with Visual Impairments

The fact that no two individuals with visual impairments are exactly alike calls for educators to consider these individual differences when developing educational and transition plans. That is, the nature and severity of a student's visual impairment (i.e., congenital, adventitious, low vision, blindness) are key to appropriately addressing students' needs. Scholl (1986) contended that unless educational programs of students with visual impairments focused on well-grounded practices based on concrete rather than abstract teaching approaches, and emphasized the relationship of objects to the environment, students would less likely be successful. Students with visual impairments may receive educational services in various settings. These placement options may range from a regular classroom in a neighborhood school to a separate school for the blind. Many students with visual impairments receive special education services in their neighborhood schools. According to Castellano (2004), approximately 90% of students with blindness and low vision, including those with additional disabilities, were provided with educational services in neighborhood schools. Castellano (2004) further indicated that beginning in the 1960s, the majority of schools for the blind specialized in educating blind students with additional, severe disabilities. Thus, individuals with disabilities have experienced a dramatic change from institutionalization to normalization. Other schools for the blind offer short term placement programs and these are meant for students who need intensive instruction in blindness-specific skills. Pogrud, Darst, and Boland (2013) examined the perceptions of parents, teachers, administrators, and students on the effectiveness of a short-term program model in meeting the educational needs of students with visual impairments at the Texas School for the Blind and Visually Impaired (TSBVI). The researchers found that most of the participants

believed that short-term programs were effective and appropriate in addressing the needs of students with visual impairments and recommended that other residential schools for the blind be modelled after the Texas short-term program.

Blind students who are fully integrated into regular classrooms and have academic goals similar to their sighted peers usually require adaptive equipment and materials such as tactile or large print materials depending on the degree of the visual impairment (Kirk, Gallagher, Anastasiow, & Coleman, 2006). Curriculum modifications may be appropriate for some students with blindness and additional disabilities including additional classroom supports and adapted materials (Hallahan, Kauffman, & Pullen, 2009; Massodi, 2004; Oyinlade & Gellhaus, 2005). Also, students who have blindness and additional severe disabilities may require an individualized curriculum focusing mainly on developmental rather than academic goals. Students with visual impairments placed in a special class receive most or all of the instruction areas within the special education classroom. Some of these students may be integrated into other general or special education programs for short periods during the day. Educating students in special classes can lead to students' receipt of enhanced levels of direct instruction on a one-to-one basis or small group, thus equipping students for successful participation in general education and the community (Hallahan et al., 2009). Some students with visual impairments who are integrated into general education classrooms may receive instruction in specific skills within the resource program as appropriate, and this allows students opportunities to socialize with their sighted counterparts from general education and others with visual impairment (Bishop, 2004; Snyder, 2005). Resource teachers are responsible for providing direct instruction, support to students and make consultations with general education teachers. Erin (2003) stated that the itinerant teacher model was a common support program for students with blindness in

local schools. The itinerant teacher travels from one school to another so as to provide educational supports to students with visual impairments as well as services to parents and the school personnel on a daily or weekly routine. Itinerant teachers have been estimated to spend about 50% of their time teaching various activities to students (Mandell, 2000). Itinerant teachers provide academic support and braille instructions as appropriate to students with visual impairments. Other supports include orientation and mobility instruction, social skills training, assistive technology training, teaching listening skills, and career awareness.

The appropriate planning and preparation of secondary students with disabilities for postsecondary education leads to an improvement in their academic outcomes (Reed et al., 2009; Reed, Kennett, Lewis, & Lund-Lucas, 2011) as well as better integration into college life (Reed et al., 2011). However, it is imperative to note that there were insufficient transition services offered by universities and colleges that particularly focused on the unique individual transition needs of youths with visual impairments (Reed, Lund-Lucas, & O'Rourke, 2003). Consequently, as students with visual impairments plan and prepare to make the transition from secondary education to higher education or employment, classroom teachers, special education teachers, teachers of students with visual impairments, and other specialist teachers are usually tasked with ensuring a smooth transition process.

High school students need to be prepared for postsecondary education and employment to make it a point that those who have the desire of going to college or engaging in employment have the ability to act independently. High school students who need substantial support may find it challenging to adjust to postsecondary education, which requires self-advocacy (Feldman & Messerli, 1995). Dependent students experience difficulty with adjustment as they enter higher education (Dimigen, Roy, Horn, & Swan, 2001). According to Reed and Curtis (2011), students

need to engage in individualized planning if they are interested in attending college so that the shock they may encounter as they enter higher education is alleviated. As a result, early planning in high school is more likely to lessen students' anxiety, enhance their sense of independence, as well as positively contribute to their ability to be successful. As noted before, secondary school transition planning for successful post-school outcomes includes focusing on essential components such as student-focused planning, student development, program structure, family involvement, and interagency collaboration. These components are discussed more in the sections that follow.

Student-Focused Planning

When working with secondary students with disabilities in the transition process, student-focused planning encompasses involvement of students in IEPs, inclusion of a comprehensive and appropriate program of study in the IEP, definition of appropriate and measurable goals in the IEP, teaching transition planning skills to students, and the use of methodical and age-appropriate transition evaluation. The key to student-focused planning is for teachers to be familiar with predictors of postsecondary success that relate to this component. If teachers are familiar with evidence-based practices, this gives them an opportunity to implement transition programs that include practices that lead to successful post-school outcomes. Regarding student-focused planning, self-determination and program of study have been found to be predictors of post-school success.

Best practice in transition planning requires focusing on the student, taking into account the student's personal goals, as emphasized in IDEA 2004. Involvement of a student in the decision-making process linked to transition planning ensures that the student's plan is more meaningful (Morningstar & Mazzotti, 2014; Wehmeyer, 1998). If student-focused planning is to

produce optimal benefits regarding the development of student aspirations and goals, then there is a need for students to learn to engage in the transition planning process fully. When students participate in education planning through IEPs, they are more likely to develop decision-making as well as other self-determination behaviors (Martin, Huber Marshall, & DePry, 2001; Martin et al., 2006). According to Johnson, Stodden, Emmanuel, Luecking, and Mack (2002), it is critical to improve a student's attendance at meetings so that his or her participation is enhanced. It is worth noting that student participation can take place through various forms. Student participation may be active, which involves taking a leading role in the meeting, or limited, which involves actively speaking during the meeting, or absent, which implies a student's presence in the meeting room without providing any information (Williams-Diehm & Lynch, 2007). Research suggested that the intent of educational meetings was usually inexplicit to students (Martin, Huber Marshall, & Sale, 2004). Hence, it is imperative for educators to learn as much as possible about students' knowledge of transition planning in order to make changes within school programs. Students with disabilities need enhanced guidance and assistance from their teachers despite the fact that high school teachers are often faced with large caseloads and limited time for individual student counseling and meeting individually with parents and families (Williams-Diehm & Lynch, 2007).

A critical element of student-focused planning is ensuring that educational decisions are founded on students' goals, aspirations, and interests. That is, it is vital to promote the development of the student's self-awareness as well as incorporate this information when setting short- and long-term goals. One useful approach for assisting students in identifying their interests and priorities is the provision of cross-curricula opportunities that allow students to gather and make self-reflections on the information and then consider such information when

setting goals (Rowe et al., 2013; Sands & Wehmeyer, 1996). The development of a student's appropriate IEP relies heavily on these goals, and collaborative relationships with the student and his or her family are important. This is an ongoing and repetitive process that helps the student to reflect on personal experiences, make meaning specific to his or her context, utilize that information to guide future actions, and start the cycle afresh. Transition best practices and IDEA (2004) call for students to work with various people in the transition planning process. These include school psychologists, general education teachers, special education teachers, school administrators, external agency representatives, and parents. Active participation of students in the educational planning process requires them to apply self-advocacy skills to show their self-awareness to others although these are challenging skills to develop and exercise (Kohler & Field, 2003).

Self-determination. The importance of teaching self-determination among youth with disabilities has been documented in current legislation, policy, and funding programs (IDEA, 2004; National Council on Disability, 2004; Rehabilitation Act, 1992,1998) and published literature (e.g., Algozzine et al., 2001). Moreover, evidence suggested that increased self-determination may positively contribute to the improvement of student outcomes, including academic achievement, employment status, and participation in postsecondary education, and quality of life (Carter, Lane, Pierson, & Glaeser, 2006). Consequently, the promotion of students' self-determination now forms a critical aspect of best practices concerning the education of youth with disabilities preparing to transition to post-school environments (Field & Hoffman, 2002). Research suggested that students who completed secondary school with greater levels of self-determination were more likely to have successful postsecondary education and employment than their peers with lower levels of self-determination (Morningstar et al., 2010;

Test et al., 2009). Students with self-determination skills can make choices, provide a solution to problems, set goals, assess options, make efforts to attain one's goals, and take responsibility for one's actions (Rowe et al., 2013). Thus, teachers have to play an important role in teaching students with disabilities skills such as self-advocacy, goal setting, problem-solving, and choice-making. Consideration of different cultural identities of learners from diverse backgrounds is critical when teaching them to make appropriate transition decisions and utilization of self-determination skills (Trainor, 2005).

Self-determination as one of the areas of the expanded core curriculum has gained a meaningful degree of consideration concerning the transition of youths with disabilities. The definition of this concept relates to a person's ability to make informed and meaningful decisions about life situations, whether big or small. Typically, self-determination is said to be learned as one passes through various life experiences and positive associations have been found regarding successful transition outcomes for youths who have disabilities (Bremer, Kachgal, & Schoeller, 2003; Cmar, 2015; Gothberg, Peterson, Peak, & Sedaghart, 2015; McDonnall & Crudden, 2009). Despite the importance of self-determination, Stodden, Dowrick, Gilmore, and Galloway (2001) contended that secondary school students with disabilities lacked adequate opportunities to learn and practice these skills. Since successful post-school transitions are linked to youth assumption of more notable roles in education and future planning, students need to understand and communicate their strengths, interests, and needs; identify and set individual goals; engage in self-advocacy; and engage in self-assessment of one's progress and outcomes. Such behaviors represent individuals who are self-determined and are postulated to enhance youths' prospects for attaining meaningful outcomes (Kohler & Field, 2003; Test et al., 2009).

Students' self-advocacy skills exercised in a group context and self-reflection have been regarded as important elements of self-determination and application of these skills is a vital aspect of student-focused planning (Hoffman & Field, 2005; Kohler & Field, 2003; Morningstar & Mazzotti, 2014). Recently, self-advocacy and self-determination have been applied to assist in promoting students' participation in student-focused planning. It is evident from past research that students who had good self-determination skills were more talkative during transition planning meetings compared to students who had poor self-determination skills (Wehmeyer, 2001). However, more time is required for students to learn the various aspects of self-determination. Self-determination skills need to be taught progressively, beginning from a young age. When a student grows, an enhanced level of responsibility may be assigned to and expected of the student (Morningstar & Mazzotti, 2014). For example, a student can be part of the initial transition planning meeting and share his or her views concerning transition goals. However, as the student progresses through the senior year of high school, he or she should take a leading role in the meeting and the decision-making process. Numerous curricula have been formulated on the basis of research to help students with disabilities learn self-determination and self-advocacy skills such as Steps to Self-Determination (Hoffman & Field, 2005), and Next S.T.E.P.S. (Halpern, Herr, & Doren, 2000). Despite several attempts geared toward understanding and improving the self-determination of youth with disabilities, little is known about the self-determination of secondary school students with visual impairments. Wolffe and Kelly (2011) argued that conducting further exploration on the NLTS2 data to obtain evidence of the effects of self-determination on work and community participation outcomes may assist educators and parents in youths' preparation for life after secondary school and outside the home.

Program of study. The development of a relevant program of study has also been found as a positive post-school predictor for successful employment of youth with disabilities (Test et al., 2009). The program of study entails a set of courses tailored to meet an individual's unique needs, personal experiences, and curriculum tailored toward enhancing academic and functional skills so as to help students to reach their post-school goals (Rowe et al., 2013). Hence, it is imperative that effective transition programs equip teachers with knowledge and skills to collaborate with learners in the development of an individualized program of study that takes into account relevant school experiences that lead to students' engagement throughout their course of study in secondary schools. Understanding and implementation of evidence-based practices are crucial to meeting this purpose. Secondary educators need to have a better understanding of predictors of post-school success, types of individualized learning programs (Solberg, Wills, & Osman, 2013), and diploma choice that students have.

Courses of study are the specific academic requirements that a student should complete so as to achieve desired postsecondary goals (O'Leary, 2010). The courses of study entail describing a student's coursework for several years from his or her present school year to anticipated exit year from high school, in order to assist the student to attain desired post-school goal(s). It is critically important that courses of study be aligned with the postsecondary goals, and they have to be reviewed on an annual basis to ascertain that the student passed the courses, did not drop a course, or to verify if the student did not have access to a course. The purpose of reviewing the courses of study is to ensure that it represents a student's educational program and plan that outlines all courses as well as educational experiences from his or her first IEP effective by the fourteenth birthday, or earlier, as found appropriate by the IEP team (O'Leary, 2010). Moreover, the course of study reflects a plan geared towards helping the student attain his or her

measurable postsecondary goals, which is a significant step towards making a successful transition to postsecondary environments. A well-developed course of study reflects multiple years of particular courses and educational experiences, instead of just a year. Specific courses need to be listed by title for each year as well as an inclusion of core courses that the student requires to graduate and electives, internships, and other credit-earning experiences that provide direct support to the student's desired postsecondary goals.

Although courses of study are important to all students, there are multiple questions that need to be answered concerning the school programs and performance of students with disabilities. Questions may include the degree to which students enrolled in courses in general education classrooms or special education contexts and the broad range of distinct school programs of students whose nature and severity of a specific disability differs. The NLTS2 examined course taking by high school students who attended typical schools mainly by paying attention to course credits earned (Newman et al., 2011). It is critical to note that for students to advance toward graduation, they need to take a specific set of courses as well as meet the performance standards linked to those courses, leading to earned credits. Newman et al. (2011) found that students with disabilities had less high school credits (22.7) than their counterparts in the general population (24.2). In addition, students' coursework in the general population was geared more heavily towards academic courses, than for students with disabilities (16.1 credits vs. 12.7 credits), and the number of vocational and non-academic and non-vocational credits for students with disabilities were more than those for students in the general population (4.5 credits vs. 3.1 and 5.7 credits vs. 4.9, respectively). Academic courses formed part of the school programs of almost all students with disabilities (99%) and their general population peers, who

attended typical high schools and only 57% of total earned credits was accounted for by academic credits.

Student Development

Student development relates to the assessment and teaching of functional, academic, social, and vocational skills to make it a point that students are ready to face the challenges of adult life (Kohler, 1996). In this domain, the responsibility of teachers is to teach and train students to live independently, participate in the community, gain employment skills, have work-based experiences, and be equipped with academic and self-determination skills. The role of teachers is to assess and train students in transition-related, individual-specific skills, teaching strategies that respond appropriately to culture by incorporating knowledge about culture, previous experience, reference system, and performance styles of learners from diverse backgrounds (Gay, 2010).

According to Brolin (1989), life skills are an essential aspect of student development and they encompass a wide spectrum of knowledge and skills that are necessary to achieve independent adult living (Brolin, 1989, 1995). Many students with disabilities have unique needs that are not adequately addressed. Students with disabilities need education and support in order to learn the necessary life skills and behaviors. Major skill areas that students with disabilities need to learn include daily living skills, personal/social skills, and occupational skills (Brolin, 1989, 1995). Effective student development practices are essential because they help students to have increased knowledge, to develop relevant skills, provide directions and support on the application of those skills, and allow for multiple opportunities for practice (Kohler & Field, 2003). The importance of student development practices in helping students with disabilities to prepare for postsecondary environments has been validated through research for many years. For

example, career-related work experience as well as achievement of transition goals that students with disabilities identified were strongly related to their graduation and employment (Benz et al., 2000). Moreover, Kohler and Hood (2000) determined several programs that led to an increase of students' skills and/or successful post-school outcomes and outlined particular examples for occupational skills training, work experience opportunities, academic development, and other components related to student development. For instance, the development of appropriate students' occupational skills and supported work experiences continually resulted in students with disabilities securing employment in the private sector.

Legislation such as the IDEA has been subjected to consistent improvements over the years through the reauthorization process to provide appropriate support regarding the inclusion of individuals with disabilities in the society (Rubin & Roessler, 2008). Also, the Americans with Disabilities Act (ADA) of 1990 (P.L. 101-336) widened protections within the provisions of the Rehabilitation Act to all individuals having disabilities, assuring that they have access to public buildings, programs, transport services, telecommunication services, and employment. However, regardless of various legislation, successful transition outcomes for individuals with visual impairments continues to be evasive (McDonnall, 2010b; Shaw, Gold, & Wolffe, 2007; Wagner, Newman, Cameto, & Levine, 2005). Several factors have been found to inhibit these youths from pursuing positive postsecondary transition outcomes. Education professionals in the area of visual impairment have repeatedly emphasized the importance of content areas beyond the regular education curriculum for students with visual impairments to be highly competent and succeed academically, find employment, and engage fully in the community (Hazecamp & Huebner, 1989; McNear, 2007; Wolffe & Kelly, 2011). Content areas that relate to specific disabilities are referred to as the expanded core curriculum, and they include among others such

areas as orientation and mobility (O&M), social skills, assistive technology, and independent living (Huebner, Merk-Adam, Stryker, & Wolffe, 2004; Wolffe & Kelly, 2011). Despite the consensus about the importance of these content areas, educators and advocates continued to debate on ways to attain the task, considering the time constraints surrounding each day of school, as well as who was responsible for teaching which curriculum components (Lohmeier, 2007; Wolffe et al., 2002).

Regarding student development, independent living or self-care and social skills have been found to be particularly essential components of the transition process for learners with disabilities. Teachers need to help students to integrate these skills to help them meet their learning needs. Integration of skills involves being knowledgeable on how to effectively incorporate independent living and social skills across all areas of the curriculum and community settings. Teaching independent living skills to students with disabilities varies depending on the type of disability and the needs of the individual student. For example, an individual with a visual impairment may need to be trained in the use of assistive technology and independent travel skills in order to improve his or her level of independence. Several evidence-based practices have been used to teach independent living skills to students with disabilities. For example, computer-assisted instruction has been identified as an effective strategy for teaching students with intellectual disabilities how to prepare and cook food (Ayres & Cihak, 2010; Mechling, Gast, & Fields, 2008). Also, video modeling has been an effective approach to the teaching of home maintenance skills to learners with autism and moderate cognitive disabilities (e.g., Cannella-Malone, Wheaton, Wu, Tullis, & Park, 2012; Mechling, Gast, & Gustafson, 2009).

Assistive technology. The IDEA 2004 definition of assistive technology comprises of two parts, namely, assistive technology devices and assistive technology services (IDEA, 2004). This federal law defined assistive technology device as “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability” (34 C.F.R § 1401(1)(A)). An assistive technology device should impact the functioning of a child with a disability. For example, a closed circuit television (CCTV) enables a child with a visual impairment to read regular print materials, thereby leading to an improvement in his/her ability to complete school work. A white cane increases the ability of a child with a visual impairment to move around the school environment and classroom to participate in school activities. Looking back at the first part of the definition above, an example of an assistive technology device that can be purchased from a store is a large computer monitor for learners with visual impairments, who need a magnified visual display. An example of an assistive technology device that can be modified is the addition of special software to a standard computer to enable a student with a visual impairment to read his or her books through auditory means. A customized assistive technology device may be a talking computerized device that is utilized as an augmentative communication system or computer-based activities designed by teachers to teach particular skills to students.

Dell et al. (2012) defined assistive technology as a continuum from low tech to high tech devices for better organization. Low-tech devices do not have electronic components and can be purchased at relatively low costs. Mid- tech devices contain electronic components and require less training whereas high-tech devices are usually based on computer technology, generally require training to operate, and are more expensive. Assistive technology services are defined as

“any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device” (34 C.F.R § 1401(2)). The inclusion of this part of the law showed that it was insufficient to solely provide assistive technology to students with disabilities.

Successful implementation of assistive technology includes providing essential supports. The consideration of assistive technology continues to be one of the "special factors" that need to be taken into account during the IEP development. The IDEA 2004 restates the significance of assistive technology concerning the teaching and learning of students with disabilities by providing priority standing to finance “projects that promote the development and use of technologies with universal design, assistive technology devices, and assistive technology services to maximize children with disabilities’ access to and participation in the general education curriculum” (34 C.F.R § 1481(d)(4)(6)).

The Rehabilitation Act of 1973, and subsequent amendments, as well as the ADA of 1990 and 2008, have had a tremendous effect on providing assistive technology to students with disabilities. As noted before, school districts have to comply with Section 504 to receive federal funding. According to Section 504, the 13 categories of students with disabilities under IDEA 2004, and those with disabilities who do not qualify for special education and with medical conditions, are entitled to accommodations if their conditions affect their education (Bowman, 2011; Utah State Office of Education, 2007). Therefore, students regarded as having a disability under Section 504 may be eligible for assistive technology to benefit from educational opportunities. Concerning education, the ADA is of more importance to postsecondary students who no longer fall under the IDEA provisions. Even though assistive technology is not specifically mentioned under this law, it is usually regarded to conform to the phrase “auxiliary aids and services” that students need to receive to make their programs accessible. When

appropriately used, technology devices can positively impact the school experiences of students with disabilities. A determination of which technology tools best suit a student's needs is achieved by inclusion of the student and his/her parents in the decision-making process. The SETT Framework (Zabala, 2000; 2005) provided a helpful guide for decision-making about assistive technology. This framework emphasized the need for focusing on the student first during the selection of assistive technology (e.g., student strengths, student interests, and student needs), then consideration of the type of environment where most of the student's time was spent, what kinds of tasks the student needed to perform to succeed in the said environments, and how technology tools might provide support to help the student to participate actively in those activities, as well as approaches to enhance the student's performance. It is crucial to note that Universal Design for Learning (UDL) leads to an enhanced accessibility of the curriculum to a wide spectrum of students, including general education students and those with disabilities (Universal Design for Learning [UDL], 2005). Application of UDL principles in the classroom may lead to a decrease or elimination of the need for supplemental assistive technology solutions in the classroom for some students. However, other students will still need specialized technology solutions despite the UDL practice. For example, based on the fact that there are comparatively lower numbers of blind students, there is a small potential market for braille keyboards. Consequently, braille keyboards are unlikely to become a standard choice for traditional computers. Hence, although universal design is an important development for individuals with disabilities and continues to be a crucial component of the assistive technology decision-making process, it does not fully eradicate the necessity for specialized tools.

Several significant relationships have been established between instructional approaches and students' outcomes. When examining disability-specific services received by youths through

public schools in a secondary analysis of important variables from the NLTS2, Wolffe and Kelly (2011) found several significant associations between instructional practices in the expanded core curriculum content components and successful outcomes for students with visual impairments. Significant relationships were noted between the use of assistive technology at secondary schools, such as braille note takers and accessing the Internet through computers, and enrollment in an institution of higher education or engaging in paid work. Assistive technology is used as a compensatory skill as it permits individuals with visual impairments to accomplish activities that are commonly accomplished by sighted individuals. When persons with visual impairments have access to printed materials, this is a particularly significant step towards their success both academically and vocationally (Nagle, 2001; Wolffe & Kelly, 2011; Zhou, Smith, Parker, & Griffin-Shirley, 2013). Despite the equalizing effects of the use of assistive technology for individuals with disabilities, it is worth noting that secondary school students have limited opportunities to learn about technological devices that are most appropriate to meet their needs as well as their proper usage (Reed & Curtis, 2011).

Assistive technology funding is provided by several sources, although it remains one of the predominant challenges for many schools, institutions, and people with disabilities. Shortage of funding is one of the dominant obstacles to the effective implementation of assistive technology (National Task Force on Technology and Disability [NTFTD], 2004). IDEA simply authorizes the consideration of assistive technology but fails to provide sufficient funding for the technological tools that may be deemed appropriate. Even though low-tech assistive technology devices can be less expensive, the cost increases considerably along the assistive technology continuum. Some school districts already experience financial constraints, thereby making funding an impossible hindrance to assistive technology implementation.

Sources of funding for the assistive technology of students from preschool to high school may include school district budgets as well as public and private insurance. According to IDEA, school districts must provide assistive technology devices and services at no cost to the families of students, as long as such technology is essential for students to gain from a free appropriate public education (FAPE) (IDEA, 2004). It is the role of school districts to provide any assistive technology noted in a student's IEP, despite the cost. However, medically necessary assistive technology can be obtained through other sources such as Medicaid and private health insurances of parents, provided there is voluntary parental agreement. To ensure assistive technology is provided at no cost to the family as required by IDEA, parents may have to be reimbursed by schools for insurance copayments or deductibles (Hager & Smith, 2003). Also, vocational rehabilitation (VR) agencies may provide funding for assistive technology. VR funding for assistive technology differs from state to state. Since VR funds need to be focused toward the enhancement of employment outcomes of students with disabilities, Kemp, Hourcade, and Parette (2000) advanced that VR assistive technology requests specifically indicated the potential benefits of the technology concerning the vocational independence and efficiency of the student.

Orientation and mobility. The use of braille and orientation and mobility skills are significantly related to paid work, rather than work around the house, following completion of high school (Kelly & Wolffe, 2012; Wolffe & Kelly, 2011). Orientation and mobility services are part of the related services given to qualifying students as a component of their IEP and the aim of these services is decided following an assessment of the child's unique needs by an orientation and mobility specialist. Based on the fact that individuals with visual impairments exhibit variations in visual functioning, orientation and mobility programs can include a broad spectrum of content. Experts have been found to differ concerning vital aspects of orientation

and mobility skills for individuals whose visual impairment severity differs, such as those who are blind or with low vision (Wall-Emerson & Corn, 2006).

An important aspect of orientation and mobility is its implementation in the natural environment, which includes the school context or outside the school perimeters (Allison & Sanspree, 2006; Pierangelo & Giuliani, 2004). Individuals with visual impairments are usually placed in a real world setting by their orientation and mobility instructors, thus providing practical experience and age-appropriate activities to perform. Youths learn how to navigate the environment to access community resources, shop, use public transportation, as well as move around their neighborhoods. According to Huebner and Wiener (2005), acquisition of these essential and empowering skills is similar to acquiring academic and social skills, which are of considerable significance to the social and economic independence of individuals with visual impairments. Although orientation and mobility instruction is an important aspect of the school experience of students with visual impairments, there is limited knowledge regarding providing this service to secondary school students enrolled in public schools (Cameto & Nagle, 2007). Moreover, research regarding orientation and mobility of students with visual impairments has particularly focused on how orientation and mobility predicts employment for these individuals. For example, when examining postsecondary school outcomes for youths with visual impairments from the NLTS2, Cmar (2015) found that those with high community travel scores had significantly more likelihood to secure employment up to six years after leaving high school. These results point to the importance of good orientation and mobility skills in predicting postsecondary employment outcomes as well as the need to train in disability-specific skills among youths with visual impairments.

Social skills. Social skills have been identified as a predictor of successful post-school outcomes and they have been operationally defined as “behaviors and attitudes that facilitate communication and cooperation (e.g., social conventions and social problem-solving while engaged in a social interaction, body language, speaking, listening, responding, verbal and written communication)” (Rowe et al., 2013, p. 10). The integration of independent living skills and social skills is key for teachers to ensuring their support for the unique and distinct needs of students with disabilities. Not only do youths with disabilities need to master particular skills in areas such as math, literacy, and independent living to enjoy successful post-school outcomes, but these skills need to be integrated with adequate social skills (Bremer & Smith, 2004). Social skills provide the foundation for social competence. According to Gresham, Sugai, and Horner (2001), the definition of social skills includes five domains, namely, “peer relational skills, self-management skills, academic skills, compliance skills, and assertion skills” (pp. 333-334). The authors further defined social competence as “the degree to which students are able to establish and maintain satisfactory interpersonal relationships, gain peer acceptance, establish and maintain friendships, and terminate negative or pernicious interpersonal relationships” (p. 331).

The importance of social skills cannot be ignored for all students including those with disabilities. To effectively solve social problems, students need to be able to read their own and other people’s feelings, as well as have the ability to label and express numerous feelings appropriately and such abilities constitute social and emotional learning (Botsford, 2013; Zins et al., 1998). When youths have adequately developed social skills, they are more likely to develop strong, meaningful, and positive relationships with peers, be successful in school, and successfully start engaging in the exploration of adult roles such as employment and community membership and participation. Social skills are also important because they help individuals to

develop positive, healthy adult relationships with members of their families, as well as peers. Youth with strong social skills, especially concerning resolving conflicts, being emotionally intimate, and being able to use pro-social behaviors, have been observed to have a higher probability of being accepted by their peers, develop friendships, maintain stronger relationships with parents and peers, be seen as effective problem solvers, be able to develop more interest in school, and show enhanced academic performance (Hair, Jager, & Garrett, 2002). It is critically important for students to acquire adequate social skills while they are still attending school, and further support and refinement of these skills needs to occur in postsecondary, community, and work environments.

Gresham et al. (2001) indicated that inadequate social skills formed the basis for defining a variety of disabilities, especially those considered to be high-incidence disabilities, that impeded students' academic progress. Therefore, it is imperative for teachers to help students to learn social skills as a way of reducing the impact of disability on school success. It is difficult for teachers to fully engage students in different learning experiences, particularly those that are cooperative in the absence of social skills (Bremer & Smith, 2004). The use of cooperative learning approaches by secondary teachers across the curriculum validates the need for students to learn and develop strong social skills. Full participation in cooperative learning may require training of some students with disabilities in several skills (e.g., giving and receiving feedback, listening, appropriate self-disclosure). Appropriate display of one's social behavior may be of more importance in community life compared to academic or employment skills in establishing whether an individual is viewed as competent (Black & Langone, 1997; Sacks & Wolfe, 2007). For example, a study was conducted in which the researchers examined the extent to which adults with mild intellectual disabilities were able to participate appropriately in the "small talk"

associated with any workplace (Holmes & Fillary, 2000). The findings of the study showed that employees with intellectual disabilities who exhibited competent social skills were typically viewed more positively compared to those who had inadequate social skills, despite the level of task-related skill (Holmes & Fillary, 2000). Hence, the idea that social skills competence will result in positive views of individuals with disabilities can be expanded to include other environments such as postsecondary education and neighborhoods.

Research in the field of visual impairment has shown that an individual's ability to initiate, develop, and maintain relationships with other people has a positive effect on employment outcomes (Botsford, 2013; Gothberg et al., 2015; Sacks & Wolffe, 2006). Golub (2003) found that social competence was one of four factors that contributed to securing employment. In the study, employers valued social skills, as well as conversational skills, compatibility with workplace standards, and being able to sustain healthy meaningful relationships. Moreover, according to Sacks and Wolffe (2006) social competence is an essential component for the success of students in the society, extending beyond the school years. Regardless of high academic achievement, rates of employment for individuals with visual impairments continue to be low. Taking into account the small increase in the employment rates for youths and adults with visual impairments (Erickson, Lee, & von Schrader, 2012), it is reasonable to identify variables that impact on successful transition outcomes and their wide-ranging ramifications across the lifespan.

Paid employment/Work experience. Employment skills and experiences are also essential for successful post-school employment outcomes of students with disabilities. Teachers are expected to be knowledgeable and skilled regarding the provision of school-based and work-based opportunities to students during their secondary school years. One important predictor of

post-school concerning the teaching of employment skills and experiences for students with visual impairments is paid employment/work experience. Therefore, it is crucial for teachers to be able to embed school-based and work-based experiences into the curriculum. The identification of meaningful school- and work-based career development experiences is critical for teachers (Baer et al., 2003; Benz, Lindstrom, & Yovanoff, 2000). School-based experiences include school-based enterprises or on-campus jobs while work-based experiences include paid work experiences, volunteering, and internships. Thus, teachers need not only to understand the predictors of post-school employment for students with disabilities, but also how to train students in employment skills so that they are well-equipped to secure meaningful and competitive post-school employment.

The quality of employment outcomes attained by transition-age youths with disabilities varies broadly across the United States. Examples of employment outcomes for youths with disabilities as they transition from school to adult life include customized employment, real work for real pay, microenterprise, and job shadowing (Griffin, Hammis, & Geary 2007; Wehman, Inge, Revell, & Brooke, 2007). These work outcomes mirror appropriate job matches which usually encompass bargained arrangements with employers (Targett & Inge, 2008). When employment is focused in community-integrated job environments as a key goal, the pros of employment for transition-age youth with disabilities in wages, the capability for benefits, as well as the reputation and self-determination that result from gainful employment are recognized (Brooke, Revell, & Wehman, 2009). Youths with disabilities whose interest is to enter competitive employment successfully as a transition goal, including the transition personnel supporting them, experience various obstacles (Wehman, Revell, & Brooke, 2003). Therefore, it

is imperative that teachers and the transition staff have an adequate understanding of the resources and shortcomings of the adult service programs in their communities.

Despite the importance of work experience, students with disabilities do not always have adequate opportunities to gain this experience and improve their potential in the employment arena. Although some of these students had basic learning skills and were capable of acquiring vocational skills via training (Aliza, 2013), there were a limited number of employment opportunities since work experience was usually noted as one of the requirements when applying for a job (Lindstrom, Doren, & Miesch, 2011). Moreover, Oertle and Trach (2007) emphasized the importance of work experience as one of the elements for developing minimum employment qualification alongside training and education. Also, according to Butcher and Wilton (2008), work experience is an asset when conducting a job search. Therefore, it is imperative for students with disabilities to be given opportunities to acquire work experience in real work settings to enable them to secure jobs and earn an independent living. Work experiences for youths with disabilities have been associated not only with equipping them with relevant work experience for future jobs, but with critical work skills, appropriate work ethics, and work conduct (Lindstrom et al., 2011).

The essence of transition programs from secondary school to employment is to provide training to students with disabilities to equip them with relevant skills and help them obtain work experiences beyond their school environment (Aliza, 2013). Placements of students at real work environments with the necessary general work skills would provide them with the platform to learn about collaborative work, obligations, and work ethics (Lindstrom et al., 2011). When examining work barriers encountered by students with disabilities during their internships after receiving work-related training, Aliza (2014) found that students had difficulties adjusting to

their new work environments, had poor interactions with co-workers, experienced difficulty following instructions, as well as showed negative attitudes towards their work. Therefore, supervision of students with disabilities is critical for them to gain valuable work experience during the transition process. Perhaps the various challenges these students experience on vocation and academics in the post-school setting may be somewhat related to a shortage of proper support (Gillis, 2006).

As noted earlier, the transition of youths with visual impairments from high school to work or higher education can be a complex and frustrating experience. The main purpose of transition services is to ensure that there is a continuum of collaboration in providing services between the educational and vocational rehabilitation systems so that timely, competitive postsecondary school outcomes are obtained. It is vital to note that studies that have been conducted regarding transition services and how to enhance their effect on competitive employment outcomes have typically considered all disability categories, thus providing limited insight into the transition challenges of youths with visual impairments (National Council on Disability, 2000).

The work experience of adolescents across all disability groups in general at the high school, irrespective of being in part-time or full-time jobs during summer breaks, predicted obtaining competitive employment after leaving high school (Stodden et al., 2001). This trend also applied for youth in specific disability categories like visual impairments (Connors, Curtis, Emerson, & Dormitorio, 2014; Giesen & Cavanaugh, 2012; McDonnall, 2010a). Taking advantage of the work environment and using it to acquire hands-on experience in the employment arena, has been shown to be of assistance toward promotion of postsecondary school employment for youths with disabilities since this gives them an opportunity to rehearse

job skills and to gain more knowledge about particular career paths (Luecking & Mooney, 2002). However, Nagle (2001) indicated that youths with visual impairments have a less likelihood than the general population to participate in these kinds of work experiences.

Although vocational rehabilitation counselors possess an in-depth knowledge concerning employment and work programs for people with disabilities, other useful community resources responsible for providing school-to-work support are available. It is the responsibility of school counselors to disseminate information about these programs with vocational rehabilitation counselors, students, and their families. An example of such a program is “The Marriott Foundation.” This foundation provides funding to a school-to-work program for learners with disabilities titled “The Bridges.” Approximately 9,000 youths with disabilities have utilized this program and 40% of employers have reported satisfaction with the program (Marriott Foundation, 2008). Furthermore, the program has been shown to predict enhanced employment success rates for youths with disabilities (Garcia-Iriarte, Balcazar, & Taylor-Ritzer, 2007).

Another program, Start on Success Student Internship (SOS) assists with the placement of students into work environments following the exit from high school. The main focus of the SOS program is the provision of initial job training as well as employment placement for youths with disabilities in poverty-stricken areas where there is a higher probability of suffering from financial or social challenges. Through this program, students are matched to jobs that require full utilization of their skills, interests, preferences, and long-term vocational objectives, with supervisors at various employment sites providing support and mentorship. The program is offered in a dozen cities and has provided services to over 4,000 students (National Organization on Disability, 2016). The SOS program is a partner with the National Organization on Disability (NOD). Students who enrolled in the SOS program have been shown to have increased levels of

self-esteem, self-determination, academic success, as well as positive advancement regarding securing permanent employment (Sabbatino & Macrine, 2007). The introduction of students to the employment arena through SOS further led to postsecondary education or employment at a probability of 75% to 85%, a rate almost three times that for all students with disabilities (National Organization on Disability, 2016).

Vocational education. In many secondary school systems, academic education is often distinguished from vocational education. There may be variations regarding the specifics, but in most cases, academic education prepares students for postsecondary education, while vocational education attempts to prepare students for meaningful employment. Vocational education refers to the engagement of students in occupation-focused courses that form part of a regular career and technical education delivery (Cobb et al., 2013; Lopez-Mayan & Nicodemo, 2013).

Vocational education includes students' enrollment in one course that would appear on the student's transcript to participation in a well laid-out program of study aimed at attaining an occupational goal. Also, the course of study may include work experiences in the community.

The relationships among transition program components may be vital. Various findings for similar programs provided in a variety of ways suggested that, for instance, work-experience tasks may have to be combined with career education classes or other elements of educational programs to obtain anticipated benefits in postsecondary school outcomes (Cobb et al., 2013).

The involvement of students in career and technical education, and/or securing a job during high school years may be linked to improved employment outcomes for students with disabilities (Baer, Daviso, Flexer, Queen, & Meindl, 2011; Cimeria 2010; Karpur, Clark, Caproni, & Sterner, 2005).

When students with disabilities take vocational education classes at secondary school, the likelihood of better post-school employment and education are increased. Several researchers have found that the more students with disabilities participate in vocational education during high school, the more they are likely to have improved post-school outcomes, particularly in the areas of education and employment (Baer et al., 2003; Halpern et al., 1995; Harvey, 2002). For example, Baer et al. (2003) found that students who took vocational education classes had a double probability to participate in full-time post-school outcomes. Also, Harvey (2002) reported that students who had vocational education credits at the high school had an increased likelihood to participate in post-school education and employment.

In the verge of fulfilling the IDEA 2004 mandate of providing assistance with transitions and appropriate interventions for students with disabilities, Long Beach Unified School District (LBUSD) developed the Vocational Education Program (VEP) (Ofoegbu & Azarmsa, 2010). The main purpose of this program was to help students with disabilities to have equal performance levels with their counterparts without disabilities in an integrated environment. The effectiveness of the VEP program was determined in helping students to acquire and retain jobs following high school graduation. Of the students who graduated in the 2004-2006 school period, 67% acquired and retained jobs whereas those who graduated in the 2006-2007 school period acquired and retained employment at 57% and 53% respectively. The results of this study suggested that a significant relationship existed between students' involvement in the VEP and career success. The VEP focused on meeting the transition needs of each student. Students who participated in vocational education programs at high school exhibited better adaptability as they experienced obstacles and displayed an ingenious use of social networks during the transition from school to work (Packard, Leach, Ruiz, Nelson, & DiCocco, 2012), a trend similar to that of

lower-income high school graduates (Blustein, Phillips, Jobin-Davis, Finkelberg, & Roarke, 1997).

Academic competence. The teaching of academic skills is also an essential component of student development. Teachers need to be knowledgeable and skilled regarding academic skill instruction for secondary students with disabilities. The academic competence of youth with disabilities has been linked to successful postsecondary transition outcomes (Benz et al., 2000), including those with visual impairments (Connors et al., 2014; McDonnall, 2011; McDonnall & Crudden, 2009). Education programs that underscore the teaching of daily living skills at the cost of academics can negatively affect the academic achievement of individuals with disabilities (Ferguson & Blumber, 2006). Perhaps, the negative effect is a result of shortchanging the academic curriculum to include daily living skills training as part of the typical school day. Students with disabilities have a higher likelihood of having a lower academic achievement level and to have less preparedness for postsecondary education, specifically in math and science-based subjects, than their peers without disabilities (Stodden et al., 2001). The lower academic achievement may be related to the reality that secondary education requirements differ among states for students as well as the accommodations made for students with disabilities (National Center on Secondary Education and Transition [NCSET], 2004).

Program Structure

According to Kohler (1996), program structure relates to the evaluation and improvement of programs to ensure that the needs of learners with disabilities are supported. Teachers are required to facilitate effective transition programs and practices, as well as have an understanding and the ability to elicit support at every level of the student's transition. For the needs of all students with disabilities to be met, it is imperative that teachers, other school staff,

and administrators have a proper understanding regarding the evaluation and improvement of secondary transition programs to make sure that there are regular program improvements.

Predictors of post-school success linked to program structure include student support, the inclusion of students in general education, a transition program, and high school diploma status. Numerous factors will help teachers improve transition programs to ensure that students have a smooth transition from secondary school to adult life including: an understanding of the distinct elements of predictors of post-school success, identification of opportunities that students with disabilities have beyond secondary school, knowledge and skills for facilitation of students' access to the general curriculum, and identification of models of transition programs such as employment programs and career education, including establishment of formal/informal student support networks (Morningstar & Mazzotti, 2014). Evidence-based practices such as the extension of career planning services after graduation have been applied to students with disabilities to foster enhanced financial skills through the provision of various services such as job training, identification of employers, and on-the-job training (Izzo, Cartledge, Miller, Growick, & Rutkowski, 2000).

Family Involvement

IDEA 2004 maintained the requirement for schools to invite parents to take part in school-based transition planning, as well as required educators to obtain parental consent concerning the initial assessment and what to include in the IEP (IDEA, 2004). Family involvement is an important component which involves allowing families of students with disabilities to participate in the transition planning process as well as giving them the authority to assume a role in the process (Kohler, 1996). Parental involvement has been found to be a postsecondary school predictor for success that needs consideration during preparation of

teachers for involvement and empowerment of families in transition planning (Test et al., 2009). Rowe et al. (2013) indicated that families, parents, and guardians should be actively involved and have adequate knowledge about all areas of transition planning such as being part of the decision-making team, support provision, and attendance of school meetings. This calls for teachers to have the knowledge and skills in providing parents and caregivers with appropriate information across all elements of the transition planning process, set up a school-wide system aimed at facilitating continuous communication with families, including ensuring that the school personnel are knowledgeable of providing culturally responsive transition planning.

Furthermore, the expectations of parents have been found as a postsecondary school predictor for learners with disabilities (Morningstar & Mazzotti, 2014). It is, therefore, imperative for teachers to have an understanding of effective transition aspects that need to be part of transition programming, that may influence the expectations of parents for learners in the transition process (Doren, Gau, & Lindstrom, 2012). Also, the encouragement of parent participation can enhance active participation of students in the process of transition planning (Wagner, Newman, Cameto, Javitz, & Valdes, 2012). This encompasses teachers' understanding of families including culturally diverse families, identifying strategies for family involvement in transition planning, collaboration with families and their children to have a better understanding of the significance of students' preparation for life after school, and promotion of positive parental expectations for culturally appropriate postsecondary employment and higher education. The need for teachers to understand evidence-based practices that can be applied to facilitate family participation during the transition process is essential. Empirical evidence has shown that providing parents with training is an approach for enhancement of parent involvement. For example, in one study, parents were trained in order to teach them about transition planning as

well as ways to become a fundamental part of the transition process (Boone, 1992). Moreover, in some areas of study, parent training strategies have been identified as evidence-based practices (Kaminsky, Valle, Filene, & Boyle, 2008).

Culturally and linguistically diverse youths with disabilities seem to be at an increased risk for unsuccessful transition compared to their counterparts with disabilities from non-minority groups (Wagner et al., 2005). Different ethnic groups usually exhibit different norm-related behaviors and have different definitions of adult roles and the role of parents can be critical in assisting educators to understand, determine, and provide support to transition outcomes that are meaningful and consistent with the culture of a family (Lai & Ishiyama, 2004). Geenen, Powers and Lopez-Vasquez (2005) identified seven primary classifications or kinds of obstacles that appeared to impede or prevented the involvement of parents in school-based transition planning, namely: “(a) power imbalance; (b) psychological or attitudinal; (c) logistic; (d) information; (e) communication; f) Socio Economic Status (SES) and contextual factors; and (g) cultural influences” (p. 4). Parents indicated concerns that information and decision-making about their children’s transition planning were mainly in the hands of school professionals. In addition, parents may be faced with psychological issues that make it challenging to be actively involved in their children’s transition planning to adulthood. For example, parents may struggle to strike a balance between their level of involvement in transition planning during the child’s adolescent stage and reduction of involvement in the child’s life. Regarding logistics, there may be conflicts between work obligations and attendance of school meetings. Although parents believe that their children’s education is important, they may not have adequate information and understanding about their rights and educational practices. Communication is, therefore, an important component that impacts parent involvement on some levels including non-verbal

communication, professional language, and styles of communication. However, parents reported a shortage of professionals who have the ability to communicate in their first language. Also, SES and other contextual factors such as poverty, drug abuse, and violence may prevent some parents from participation in the transition planning process of their children. Finally, culture may permeate almost all parental involvement barriers, especially regarding communication and information. For example, variations in linguistic patterns may result in misunderstandings between the school personnel and families. In the same qualitative study, several approaches were noted by parents and professionals for improving or better supporting the involvement of parents in transition planning. These approaches included: “(a) positive communication between parent and professionals; (b) preparing for transition at an earlier age; (c) information on school-based transition planning; (d) use of a parent advocate; (e) emotional support for parents; and (f) flexibility in meeting formats” (Geenen et al., 2005, p.4). The results of this study helped to explain why the parental involvement of culturally and linguistically diverse parents in the transition planning process may be low. While all of the approaches mentioned above could be helpful to varying degrees, their effectiveness can only be evident if teachers and other professionals remain committed to encouraging and promoting parental empowerment.

It is, however, imperative to note that there is no “one size fits all” regarding parental involvement, since parents of students with disabilities have been found to encounter greater obstacles to involvement compared to parents of students without disabilities (Fishman & Nickerson, 2014). Even though there is evidence that supports parent involvement, research has demonstrated a decrease in parent involvement (Egbert & Salsbury, 2009; Patterson, Webb, & Krudwig, 2009; Souto-Manning & Swick, 2006). In response to the varying barriers to parental involvement, Sawyer (2015) developed the BRIDGES framework, which is a model that allows

teachers to develop and implement interventions that facilitate different kinds and levels of parent participation. The acronym BRIDGES stands for Build, Recruit, Individualize, Dialogue, Generate, Empower, and Strengthen. There is flexibility in the use of this framework and teachers can also use it repeatedly during the school year.

According to the BRIDGES model, the first step requires the involvement of parents in the education of their children which encompasses proactive relationship-building strategies. An intentional approach is required for effective establishment of meaningful relationships (deFur, 2012). Meaningful connections start from the basis of trust and understanding. It is important for parents to be aware that they can depend on teachers to be their children's spokespersons and that establishment of this trust calls for teachers to be aware of and refrain from their biases, cultural norms, and beliefs (deFur, 2012). Building bridges requires a consideration of specific and measurable goals.

The second step of the BRIDGES model is the recruitment of input and buy-in (Patterson et al., 2009). Collaborative partnerships require giving all parents alternatives and voices (deFur, 2012). On a quarterly basis, surveys can be given to parents to solicit feedback and technology can be utilized to provide friendly and accessible survey formats. The critical goal is to ensure that the feedback and contributions of parents are actively recruited for the establishment of parent buy-in. The moment parents are on board, participation efforts can thrive.

The uniqueness of each student's family cannot be ignored. Hence it is vital that teachers individualize parent involvement approaches with the intention to accommodate and account for a broad spectrum of differences. It is after teachers obtain parent input concerning their preferred communication methods, as well as preferred levels and forms of involvement that appropriate

action follows. For example, parents whose native language is not English may need translators, while family members with a hearing impairment may require sign language interpreters.

Ongoing communication that parents easily understand as evidenced by accessible languages and formats is a significant component of a partnership (Epstein, 2004). It is the responsibility of teachers to be open-minded, be respectful, and provide listening ears to parents with an aim to understand their viewpoints (deFur, 2012). The BRIDGES framework allows teachers to generate ideas and provide support to parents on identifying and implementing evidence-based practices at home and the community (Sawyer, 2015). Quick and forthright strategies that focus on common parenting and educational affairs can result in improved relationships between teachers and parents, as well as between parents and students. Ideas that may be generated for parents to utilize include the development of task analyses of evidence-based practices that can be successfully implemented in the home environment.

For parents to be actively involved in their children's education, they need to be empowered. Parents can be empowered by equipping them with knowledge and skills that will improve interactions with their children (Sawyer, 2015). The independence of students can be enhanced through self-monitoring strategies. Providing training to parents through workshops and webinars can help to empower families. Also, to strengthen partnerships with parents, there is a need for a sustained effort. Increasing actions over time that regularly validate the need for collaboration leads to the success of trusting partnerships (deFur, 2012). It is, however, important for teachers to celebrate every step and form of accomplishment. The acknowledgment of parents for enhanced involvement serves as a motivating factor for continued responsiveness.

Interagency Collaboration

Interagency collaboration encompasses strategies for the development of relationships and connections with agency partners needed to enhance post-school transition outcomes for youth with disabilities (Kohler, 1996; Rubin & Roessler, 2008). Critical components for teachers to consider when working with secondary students with disabilities include linking students and their families to external agencies, understanding important aspects of interagency collaboration, and training beyond the confines of their disciplines. Interagency collaboration has been identified as a predictor of successful postsecondary education and employment (Test et al., 2009). Additionally, interagency collaboration has been consistently noted in the literature as one of the best practice strategies concerning the transition planning and programming process (Kohler, 1996; Morgan, Callow-Heuser, Horrocks, Hoffman, & Kupferman, 2013; Morningstar & Clark, 2003). Hence, it is critical for teachers to be equipped with the knowledge and skills to promote interagency collaboration. Interagency collaboration does not only require the commitment of teachers, but also supports such as establishing relationships with interagency professionals, to make it a point that students with disabilities are connected to appropriate services and supports for successful in-school and post-school outcomes.

Although school staff desire to work with external agencies in helping students with disabilities to transition successfully to post-school settings, the external agencies have been found to participate at low rates (Cameto et al., 2004). For example, Cameto et al. (2004) reported that the participation rates of vocational rehabilitation counselors and representatives from other external agencies in the secondary transition planning process were 14% and 17% respectively. The involvement of rehabilitation professionals at an early stage in the transition process through collaboration can lead to the development of relationships, provision of services,

and other community connections before the student leaves secondary school (Agran, Cain, & Cavin, 2002; Oertle & Trach, 2007). Research continues to indicate that important predictors of successful post-school transition include, among others, early intervention, coordinated planning and service provision, and collaboration with external agencies before students complete their training. These critical transition elements, combined with career development that considers students' interests and strengths, appropriate preparation, as well as healthy and supportive relationships have consistently resulted in positive post-school outcomes (Agran et al., 2002; Noonan, Morningstar, & Erickson, 2008).

One agency that is important for transition-age youth with disabilities in the United States is the state-federal vocational rehabilitation program, which is monitored by the Rehabilitation Services Administration (RSA) and this program is the largest regarding employment for youth with visual impairments (Giesen & Cavanaugh, 2012). States receive federal grants so as to implement comprehensive vocational rehabilitation programs that are meant to provide all persons with disabilities with a broad spectrum of services as a way of preparing them to engage in employment. About 2,000 cases of youths who transition from secondary education to employment and request for service before reaching the age of 22 years, have their cases closed on a yearly basis from the vocational rehabilitation program, and this is a nationwide trend following youth receipt of services (Giesen & Cavanaugh, 2012). However, the unfortunate part is that only less than half secure employment. Thus, they either participate in part-time or full-time employment in integrated environments and earn at least the minimum wage by the time their cases are closed (Cavanaugh, 2011).

The Rehabilitation Act of 1973 was sanctioned under the Workforce Investment Act (WIA) of 1998 and it underscored the benefits of providing good-quality transition services by

mandating state vocational rehabilitation agencies to reach formal interagency agreements with state education agencies for appropriate planning and effective delivery of transition services to students with disabilities (Giesen & Cavanaugh, 2012; Rubin & Roessler, 2008). Vocational rehabilitation agencies are expected to consider the information that they receive from educational professionals for incorporation when developing a consumer's individualized plan for employment (IPE). It is imperative that the development and approval of the IPE be completed before the student leaves secondary school. Youths with disabilities exiting high school need assistance concerning career assessment and guidance, including gaining access to gainful employment, postsecondary education, and community living (Noonan et al., 2008). It is one of the responsibilities of rehabilitation professionals to provide such assistance through the linkage of individuals with disabilities to beneficial community and employment resources (Oertle & Trach, 2007).

Postsecondary Education and Training

The past half-century in the United States has been characterized by efforts towards the development and implementation of policies and practices that resulted in an increased accessibility, retention, and graduation of diverse underrepresented minority groups in postsecondary education, including individuals with disabilities (Leake & Stodden, 2014). The equal access of individuals with disabilities to postsecondary education is provided for by federal legislation, particularly Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990 and 2008. Postsecondary education refers to an individual's enrollment in courses toward a General Education Development (GED) or attendance of business, technical, or vocational school (i.e., two-year junior or community college, a four-year college or university) (Wagner et al., 2005). An unintended consequence of the legislation

mentioned above may be that institutions of higher education may be satisfied with only addressing the letter of the law by ensuring that students receive accommodations and support services that enable them to have equal access to the physical environment and academic instruction, without paying much attention to the social domain. However, educational theories concerning persistence in postsecondary education emphasize academic and social integration, as shown through a sense of belonging on campus, as critical aspects of student success. Current trends in postsecondary education suggested that the next important step of advancement for students with disabilities related to the establishment and implementation of shared norms of efforts towards making a campus barrier-free, enabling, and welcoming (Leake & Stodden, 2014). That is, postsecondary education institutions need to make it a point that campuses are places where disability is not perceived as an identifier of belonging to a special group virtually nobody is interested in being part of, but disability is accepted and appreciated as an aspect of a valued diversity spectrum.

Although federal legislation has played a vital role in ensuring that individuals with disabilities have access to legal remedies for protection against discrimination, there are issues regarding compliance with the law. Postsecondary institutions need to go beyond simply complying with the law and adopt new philosophies as well as strategies concerning students with disabilities (Taylor, 2003). A major challenge in the future of secondary education and transition for students with disabilities is ensuring that they have access to and full participation in postsecondary education (National Center on Secondary Education and Transition [NCSET], 2003; Reed & Curtis, 2011). An important step towards meeting this challenge is the preparation and implementation of comprehensive transition plans which encompass a collaborative work between teachers and other professionals. As the United States economy becomes more

knowledge-based, there is an increased importance of attaining postsecondary education today than during the past decades (Carnevale & Desrochers, 2003). Research suggested that youths with visual impairments had a higher probability than youth in other disability categories to be successful academically. The NLTS2 findings indicated that at least 90% of these youths completed high school education, typically with a general diploma (Wagner et al., 2005). Moreover, the NLTS2 reported that youth with visual impairments were at least two times more likely to have enrolled in a postsecondary education than the entire group of youth with disabilities; about 33% had attended postsecondary education up to two years following high school completion (Wagner et al., 2005). Along the same vein, Newman et al. (2009) also noted that youths with visual impairments had a 78% probability of attending postsecondary education four years following high school completion, thereby being the most likely disability group to do so than other disability classifications. Furthermore, youths with visual impairments have been found to be the most likely to enroll for a 4-year university program, or college, and approximately 40% have done so, a rate four times compared to the entire group of youth with disabilities (Newman et al., 2009). Although about half of youths with severe visual impairments have managed to obtain a high school diploma and enrolled in some college courses at rates similar to their sighted peers, they have experienced low graduation rates (American Foundation for the Blind, 2006).

When youth with visual impairments enroll in postsecondary education, they require appropriate accommodations to be successful in their education. Accommodations such as the use of tactile maps, guide dogs, braille, digital recorders, and large print materials may help students to function independently and efficiently, depending on the nature and severity of the visual impairment (Hallahan et al., 2009; Kirk et al., 2006). Accessible book formats are

essential for students with visual impairments to succeed in postsecondary education. Despite the fact that the passage of the ADA (1990) was welcomed as a turning point for persons with disabilities, it did not call for book publishers to ensure that individuals with disabilities that prevented them from reading print were provided with alternative and accessible book formats. At the international level, the DAISY Consortium helps with the promotion of global access to printed books that various libraries, publishing companies, and governments produce (Gilson, Dymond, Chadsey, & Hsu, 2007). Although IDEA (2004) called for textbook publishers to provide electronic versions of textbooks for K-12 students, no federal legislation specifically mandated the same for postsecondary students. As part of providing reasonable accommodations to students with print disabilities, institutions of higher education provide alternate versions of textbooks through their offices for students with disabilities. Universities have been found to face challenges concerning the provision of accessible textbooks for students with print disabilities in a timely fashion (Gilson et al., 2007). Kirk et al. (2006) recommended that teachers should inform students with disabilities of required and recommended textbooks for courses about six weeks before classes started to allow adequate time for the preparation of textbooks in alternate formats. Other alternate forms of print materials for students with visual impairments can be ordered from braille service providers such as the National Library Service for the Blind and Physically Handicapped (NLSBPH) and the American Printing House for the Blind (Dell et al., 2012; Hallahan et al., 2009). In other cases, students with visual impairments may require the services of a reader to access information from printed materials (e.g., notes, tests, exams, textbooks). In such cases, the VR Program may be responsible for paying reading services as it is the primary source of funding for assistants or reading services for students with visual

impairments, or the postsecondary education institution may assume that role, if a student is not a VR client.

Technology is also a significant factor for students with visual impairments to succeed in postsecondary education. Utilizing information and communication technologies (ICT), as well as the Internet, on university and college campuses and in distance learning programs is ubiquitous. One way for students to be successful in postsecondary education is to adapt to the extensive use of technology that instructors use in order to support the learning process, as well as in-class PowerPoint presentations, online discussions, and the various technologies used by faculty to teach on-campus and/or online (Fichten, Asuncion, Barile, Ferraro, & Wolforth, 2009). Fichten et al. (2009) contended that the proper use of e-learning could help with promoting the inclusion of individuals with visual impairments in postsecondary education classrooms. For example, in typical classrooms, students with visual impairments could gain access to course notes and handout materials on course websites independently, provided the course websites are accessible, and the students have access to appropriate assistive technology such as adaptive screen reading and magnification software. Although universal instructional design advanced that instructional approaches, products, and environments be conducive to all students, to the maximum degree possible, with no adaptive changes, specialized design, or additional cost (McGuire, Scott, & Shaw, 2003) and the notion that the development of e-learning materials should focus on the inclusion of students with distinct disabling conditions (Burgstahler, 2006), limited availability and accessibility of ICTs and other forms of e-learning pose significant challenges irrespective of students' ability to use adaptive computer software (Burgstahler, Corrigan, & McCarter, 2005).

Historical Perspective and Background of Botswana

Botswana is a landlocked country positioned in the central region of Southern Africa. The country covers an area of approximately 581,730 square kilometers (Botswana Tourism Organization [BTO], 2013). Botswana shares borders with South Africa, Zimbabwe, Zambia, and Namibia on the south, north, east, and west directions respectively. The Kalahari Desert covers a large area of the country and this is a flat area with low levels of rainfall, sandy soils, and scarce savannah vegetation. The climate of Botswana is characterized by periods of dry temperate weather during the winter season and summer is described by periods of humid, subtropical weather combined with drier months of hot weather. The summer season lasts for about six months, starting from October to March, with temperatures rising to about 34° C in the warmest regions of the country (BTO, 2013). Winter lasts from April to September and is characterized by regular frost at night. Temperatures may drop to about the freezing point in certain places with high-altitude during the day.

Botswana gained independence from Great Britain in 1996. Before its independence, Botswana was a British protectorate named Bechuanaland. Many of Botswana's neighboring countries encountered armed struggles in order to achieve independence. Fortunately for Botswana, a relatively smooth political process took place finally leading to independence. During independence, Botswana was regarded as one of the poorest nations in the world characterized by a poor economic development, structural, and educational infrastructure. Although efforts were made to improve the economic and educational development of the country about a decade before independence, only a few senior secondary schools were available during independence, and the country had only fifteen local university graduates (Morton & Ramsay 1987). Regarding ethnicity in Botswana, Tswana is the main ethnic identity and

comprised about two-thirds of the entire population in the 21st century (Parsons, 2016).

Botswana's entire population is referred to as Batswana despite their ethnic origin. The dominance of Tswana ethnicity can be linked to the rulership of the eight Tswana states in the majority of the regions in the 19th century (Parsons, 1998). During the British colonial rule, people who lived in the eight states were officially referred to as "tribes" and this term still applies today. The national language, Setswana, is spoken throughout most parts of the country. Botswana's official language is English. Besides Setswana and English, other spoken languages include Kalanga, Sekgalagadi, Herero, Mbukushu, and Yei. The current population estimation of Botswana is about 2,314,529 (Country Meters, 2016). Approximately 70% of the population of Botswana was found to be Christian, followed by about 20% who did not belong to any religion, and about 6% who adhered to traditional beliefs as their dominant religion (University of Botswana Department of Humanities, 2008). The Christian denomination began in Botswana during the colonial rule, as it was introduced by missionaries who came from the south like David Livingstone, and regarded as the official religion of the eight existing states at the end of the 19th century. However, today, other religions such as Islam, Hinduism, Sikhism, Judaism, and Buddhism also exist in the country.

Historically, cattle rearing was an important source of income and wealth for many families in Botswana. However, the discovery of large diamond deposits following independence helped to increase economic growth at rates comparable to some of the highest worldwide, spanning from the 1970s through the mid-1990s. Although the economy depends largely on diamond mining, cattle production and tourism are also significant contributors to the economic growth. The government has made efforts towards diversifying the economy, but such efforts have continually experienced difficulties. The average unemployment rate in Botswana was

18.42% from 1991 to 2013, and in 2013 the unemployment rate expanded to 20% from 17.8 % in 2010 (Trading Economics, 2016), which is a major concern for the government. Botswana exercises a capitalist economy, characterized by a powerful tradition of central government planning aimed at the provision of infrastructure for private investment. Botswana's economy has experienced rapid growth since gaining independence from Britain in 1966, with the gross domestic product (GDP) per capita rising more than a hundred times (Konczacki, Parpart, & Shaw, 2016; Parsons, 2016). Over the past forty years, Botswana has been noted as one of the countries having the fastest growing economies in the world, marked by a remarkable record of judicious macroeconomic policies and sound governance, thus lifting the country from being one of the poorest worldwide to an upper middle-income nation. The rate of the growth of the economy exceeded expectation and reached a real rate of GDP growth of approximately 5.9% in the year 2013, even though projections pointed to a 4.8% decline in 2017 (International Monetary Fund [IMF], 2014). Few households in rural areas gained from selling cattle. That is, about half of them did not have cattle and less than a tenth owned almost 50% of the country's cattle (Parson, 2016). State revenues generated from the mining sector have been crucial in the development of infrastructure, welfare services provision, education, and agriculture. The country still experiences developmental hiccups which include high levels of unemployment, poverty, income disparities, and a considerably undiversified economy. As a middle-income nation that has experienced rapid economic growth in a relatively short time frame, government revenue has been key in the expansion of the social sector, including educational funding. Huge socio-economic challenges have characterized the past three decades due to the HIV and AIDS pandemic (Dart, 2007). The prevalence of HIV in Botswana was estimated to be 21.9%, making Botswana the third highest HIV prevalent nation worldwide after Lesotho and Swaziland (Joint

United Nations Program on HIV/AIDS [UNAIDS], 2014). However, it is worth noting that prevalence has recently dropped from 25.4% in 2005 to 21.9% in 2013. The Botswana government was among the first in Africa to fight against the scourge and this led to diverting numerous resources into addressing the challenge. In addition to the provision of free anti-retroviral drugs, several education interventions have been implemented in the general population and formal education to confront the HIV and AIDS crisis (Botswana Institute for Development Policy Analysis [BIDPA], 2003). Although there have been several challenges in implementing these educational interventions which mainly focus on behavior change, a decrease in the prevalence of HIV has been reported among school-age children and youth.

Botswana's political system is based on a multiparty state. The president of the country is the head of state and government, and electing the president to a five-year term which is limited to two terms involves an indirect process in which the leader of the political party with more than half the number of seats in parliament automatically becomes the president (Mogalakwe, 2015; The Commonwealth, 2016). The National Assembly is comprised of elected officials and a few ex officio members, as well as appointed officials chosen by the ruling party. The House of Chiefs plays an advisory duty on legislation issues concerning tribal law and custom. It consists of permanent members, representative of the eight Tswana tribes, and other members who are chosen to serve a five-year term. Also, the judicial system of the country is comprised of Magistrate Courts, High Courts, and a Court of Appeal.

Since 1969, there has been a selection of rural and urban local councils, concurrently with national parliamentary elections (Parsons, 1998). However, the power of local councils is regulated by the central government's responsibility to nominate ex officio voting members, and through its appointment of district commissioners and planning staff (Sharma, 2010). There are

sixteen administrative districts in Botswana, of which nine are rural districts while seven are urban districts. The administration of these districts is the responsibility of local authorities (i.e., district councils, city councils, or town councils). Since Botswana gained independence, free elections have been held every five years, and there has been a relatively good governance, as well as judicial respect for human rights and the rule of law (Mogalakwe, 2015).

Since 1966, there was a steady increase in the enrollment of students at all levels of education, making it possible for almost half the adult population to complete primary school by the 21st century (Parsons, 1998; 2016). An alternative education system was first developed in Botswana by Patrick van Rensburg at Swaneng Hill School in which vocational skills were integrated into the secondary school curriculum (Parsons, 1998). Nevertheless, this education system had no significant effect on the general curriculum within schools in Botswana at the time.

Disability and the National Policy on Disability in Botswana

Following Botswana's independence in 1966, the government embarked on assessing and addressing the unique needs of people with disabilities. During the early 1970s, the government appointed a commission to analyze the status of the variety of disabilities that were prevalent in the country (Government of Botswana, 2013). As a result of the findings of this study and the need for enhancing rehabilitation services, the government founded the Special Services Unit for the Handicapped (SSUH) in 1975. This unit later became a fully-fledged Rehabilitation and Mental Health Division that was housed in the Department of Public Health within the Ministry of Health. Not only did the government attempt to provide medical and rehabilitation services, but it also made significant efforts to address other special needs, which included a consideration of the education of individuals with disabilities. The steps taken resulted in the inclusion of

special education in the country's first Education Policy, which was founded in 1977.

Consequently, the Special Education Division was established with the aim of guiding in the planning and overseeing of the education of persons with disabilities (Dart, 2007; Government of Botswana, 2011).

The Department of Social Welfare and Community Development (DSWCD) was created under the then Ministry of Local Government, Lands, and Housing during the early 1970s (Government of Botswana, 2013). The department is currently named the Department of Social Services. Despite the fact that this department was not particularly established for persons with disabilities, it provides services that benefit all persons requiring such services. In addition to the specific government departments, there are several Non-Governmental Organizations (NGOs) that have engaged in the provision of a variety of services to individuals and groups of persons with disabilities in different regions of the country. Besides these NGOs, there exist numerous associations and community-based organizations that strive towards improving the welfare of persons with disabilities at the community level. Notwithstanding these efforts, challenges remained concerning the coordination of services provided to individuals with disabilities. This concern resulted in the establishment of the National Disability Coordinating Office, housed in the Office of the President in 2010. The primary goals of this office are to ensure the development of policies, strategies, and programs; review policies; coordinate the monitoring and evaluation of these programs; and identify strategies for people with disabilities to live successful lives (Government of Botswana, 2011).

In an attempt to realize the firm commitment of the government to providing appropriate services to people with disabilities, it undertook the review of the 1996 National Policy on Care for People with Disabilities (NPCPWD), culminating in the National Policy on Disability with

the assistance of the World Health Organization (WHO) (Government of Botswana, 2013). The purpose of the NPCPWD was to reduce the incidence of disability and improve the quality of life of persons with disabilities (Government of Botswana, 1996). Perhaps the focus was on the medical model of disability, which views disability as a health condition, thereby paying attention exclusively to the provision of medical services to the individual to promote and perpetuate exclusion from the society's mainstream. According to Chan, Cardoso, and Chronister (2009), the medical model considers disability as fixed in a person's body and fails to acknowledge the social context of disability, by ignoring the fact that the society is responsible for creating a disabling environment, as well as attitudinal obstacles that hinder social inclusion. Wide consultations facilitated the policy review process which commenced in 2009 through workshops and meetings with different collaborative partners, including various government departments, and NGOs of and for people with disabilities. This National Policy on Disability serves as the initial step towards the establishment of legislation as well as action plans and programs for people with disabilities so as to realize its purpose. The objectives of the National Policy on Disability are: (a) to ensure the provision of guidance to all collaborative partners, including persons with disabilities, on the resolution of the government to mainstream disability matters and ensure social inclusion of people with disabilities in all spheres of life; (b) to gather enough resources to fully implement disability-related services; (c) to ensure the provision of an enabling environment that promotes the active involvement of people with disabilities in all aspects of life; (d) to establish collaborative relationships amongst all partners, including the private and international community; (e) to facilitate research and innovation in priority areas for sustainable socioeconomic development of the country; and (f) to promote a nationwide culture of innovation and integration in dealing with disability issues (Government of Botswana, 2013).

Botswana continues to gain from the global initiative to adequately manage and mainstream disability issues. The United Nations Convention on the Rights of Persons with Disabilities was adopted by the United Nations Assembly and the United Nations in 2007 (Schulze, 2009). Despite the fact that the Botswana government is yet to ratify the Convention, it is devoted to the ideas therein expressed and aims to engage in a positive direction to establish appropriate policies and legislation to protect and promote the rights of persons with disabilities.

The Central Statistics Office results of the 1991 population census indicated that the prevalence of people with disabilities at the time was 2.2% and that 66.2% of this population lived in rural areas (Government of Botswana, 1996). However, it is worth noting that the accuracy of the findings is questionable, as people self-reported the presence of disability based on a questionnaire on disability during the census period. The 2001 population and housing census revealed that 3.5% of the population had some form of disability, while in 2011 the estimate of people reported as having disabilities was 59,103 (about 3% of the total population) (Motlapele n.d.). Because people with disabilities in Botswana are not registered, it is difficult to ascertain the number of individuals within various disability categories. That is, in developing countries, there is inadequate internationally comparable statistical data concerning the prevalence, trends, and dispersion of disability, and most of the national-level data is inaccurate and outdated (Eide & Loeb, 2005; Yeo 2001).

Botswana Education Policy Overview and Current Education Structure

The first education policy post-independence was the National Policy on Education adopted in 1977. The review of this policy led to the Revised National Policy on Education (RNPE) formulated in 1994. These policies are consistent with the nation's Vision 2016 and National Development Plans, and have been the basis of a policy framework for Botswana's

education system (Ministry of Education and Skills Development [MOESD], 2015). The policy documents were formulated from extensive consultations of Presidential National Commissions in 1977 in which four key national principles were identified. These principles make the philosophy of harmony, which is the foundation upon which the education system is expected to build its goals, purpose, and objectives. The four principles included democracy, development, self-reliance, and unity.

The Revised National Policy on Education (RNPE) is an important policy which greatly emphasizes that all children, adolescents, and adults should be provided with education and training (Government of Botswana, 1994). The policy also stresses the need for the provision of an education system that is appropriate, equitable, and of high quality. The RNPE has several objectives which include the effective preparation of students for life, citizenship, and the employment arena; the development and training of students that is responsive and consistent with the priority areas of the economy; the improvement and maintenance of quality in education; the enhancement of the performance and condition of the field of teaching; effective management of the education system; and the improvement of cost-effectiveness and cost sharing in education funding (Government of Botswana, 1994). The policy directions that were formulated more than two decades ago in the RNPE continue to be valid and relevant to what the education and training sector needs (Government of Botswana, 2007). Also, the government of Botswana has emphasized the need to improve the relationship between the education system and the employment sector as a national priority. When the policy mentioned above documents are combined with the Children's Act of 2009, they provide the wide legal framework for an education system that considers the rights, protections, and care of children.

While the foundation has been established, there continues to be a need to build on it to move in the direction of a more competitive and productive human resource as envisioned in the National Human Resource Development Strategy (2009-2022) (MOESD, 2015). The Information, Communication, and Technology (ICT) Policy of 2004 indicated that successful integration and sustenance of ICT in the education system encompassed an enabling policy environment and point of reference at the national level (Government of Botswana, 2007; Isaacs, 2007). Furthermore, the policy emphasized the significance of developing a coordinated plan that encompassed introducing national education-related policies to focus on infrastructure and connectivity, teachers' professional development, curriculum integration, as well as the development and utilization of appropriate content and computer programs. Additionally, the MOESD formulated the Inclusive Education Policy in 2013 which gives significant direction aimed at attaining an inclusive education system that provides all children, youths, and adults with access to appropriate and high-quality education regardless of having a disability or other identity statuses. In Botswana, the highest priority is now given to enhancing the quality of education consistent with Vision 2016, which calls for a nation that is educated and informed, as well as having a nation that has good moral values and is tolerant, with a current knowledge-based economy (MOESD, 2015).

Significant progress has been made in Botswana regarding the creation of a wide range of educational opportunities. The present education system is experiencing extensive reform efforts at all levels, addressing significant challenges of the RNPE and partly the National Development Plan 10 to ensure the provision of accessible, efficient, high quality, and appropriate education and training to promote economic growth. The basic education in Botswana entails a total of 12 years (i.e., seven years of primary education, three years of junior secondary education, and two

years of senior secondary education) (Isaacs, 2007). Primary education, junior secondary education, and senior secondary education are United States equivalents of elementary school education, middle school education, and high school education respectively. Education is highly subsidized, and the first ten years of primary and junior secondary education are available to all.

Although the official age to begin school is six years, most children start school at the age of seven. Parents and guardians are responsible for paying a co-payment for education, except parents of children belonging to lower income groups who receive free education. All students receive free school meals. It is also important to indicate that private institutions mainly provide pre-school education. There is an automatic progression from primary school to junior secondary school, even though currently about 12.5% of students in each class can repeat a school year (MOESD, 2015). There are only three nationwide examinations that students sit for during basic education. These include the Primary School Leaving Examination (PSLE) in the final year of primary school, Junior Certificate of Education (JCE) at the final year of junior secondary school, and only those students who pass at this level are allowed to progress to the senior secondary school where they sit for the Botswana General Certificate of Secondary Education (BGCSE). There are vocational training opportunities that are accessible to other students after leaving junior or senior secondary schools such as Brigades and vocational technical schools. Issues of concern in the education sector were found to include about 10% of children who could not access education despite an increase in the enrolment rate, considerable school dropout rate between primary school and secondary school students, a disparity in educational achievement between students in rural and urban areas, limited achievement in numeracy and literacy across the board, and high levels of repetition rates at the first and second standards (grades) of primary education (Hilsum, 2003).

In Botswana, public and private institutions are responsible for providing postsecondary education (i.e., universities, colleges). Postsecondary education gives secondary school graduates the opportunity for admission and training in a program of interest so as to be equipped for competitive employment. The University of Botswana (UB), affiliated institutions (i.e., colleges of education, nursing schools, and Botswana College of Agriculture (BCA), the Botswana Accountancy College (BAC), and the Botswana International University of Science and Technology (BIUST) are public and public-private partnered institutions that provide 2-year diplomas, 4-year degrees, and professional qualifications.

The delivery of technical and vocational training occurs at different levels which include certificate level to diploma level in various institutions. There are seven Technical Colleges owned by the government and 35 Brigades (MOESD, 2015). Moreover, there are accredited private training institutions that provide vocational training to broaden the skill range. These institutions are meant to give diverse trainees access to training. It is the responsibility of the Department of Technical and Vocational Education and Training (TVET) in the Ministry of Education and Skills Development to ensure appropriate planning and implementation of technical and vocational education, to make it a point that the country's manpower needs are met.

The administrative structure of the education system involves a three tier system. The Headquarters of the education sector in the Ministry of Education and Skills Development is responsible for policy making and an all-round strategic planning and coordination of education activities. The Regional Directorates are responsible for the implementation of policy as well as coordination of education services. It is the duty of schools and educational institutions to provide teaching and learning opportunities, including the coordination at the institutional level. The primary education level involves a shared responsibility between the MOESD and the

Ministry of Local Government and Rural Development (MLGRD). The MOESD focuses on curriculum development and delivery of instruction, student assessment, teacher education, as well as recruitment and management, while the MLGRD is tasked with the development of infrastructure, provision of learning resources, and school feeding programs. At the secondary level, shared responsibility occurs between the MOESD and the Ministry of Infrastructure, Science, and Technology (MIST), in which total accountability for junior secondary education and development of infrastructure lies with the MOESD, whereas the MIST is responsible for the infrastructure development at senior secondary schools.

Special Education in Botswana

Historically, people with disabilities in Botswana suffered inhumane treatments, oppression, discrimination, and were exposed to negative stereotypes and attitudes as was the case in many countries. Negative attitudes from the society toward individuals with disabilities were common and Dart (2006) found that teachers made negative comments about students with disabilities which suggested that these individuals were cursed, bewitched, and that teachers were afraid of socializing with them. However, there is no doubt that the society's attitudes continue to change and persons with disabilities are becoming more accepted as the media increases exposure and an increased presence of role models with disabilities is evident.

According to Abosi (2000), a formal approach to special education in Botswana began in 1969, when the first resource center for students with blindness was founded in Mochudi by the Dutch Reformed Church. This was an important step that was taken by missionaries who opposed the traditional way of educating boys and girls that was led by chiefs in most villages around the country. Following this incident, other missionary organizations continued to open institutions for people with different disabilities in various parts of the country. For example, the

Lutheran Church founded a school for students with hearing impairments and in 1971 the Camphill Community founded a residential school for students with mental and physical disabilities. The Botswana government is signatory to numerous international agreements that focus on service provision for children with disabilities. Botswana adopted the Jomtien Declaration (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 1990) after realizing the commonality of the purpose of education to all children, and the notion that education is a fundamental human right that needs to be available to all individuals including those with special needs. Moreover, being a signatory of the Dakar Framework for Action in 2000 (UNESCO, 2000) emphasized the government's commitment to ensuring educational opportunities for all citizens in the society, including disadvantaged populations.

The national policy also shows the government's willingness to address the needs of students with disabilities. The first significant step taken in Botswana regarding the education of students with disabilities was the approval of the Revised National Education Policy (RNPE) by the National Assembly on March 7, 1994. The policy document spells out the commitment of the government to the education of all individuals including those with disabilities. More specifically, the goals of the RNPE include:

to ensure that all citizens of Botswana including those with special needs have equality of educational opportunities to prepare children with special educational needs for social integration by integrating them as far as possible with their peers in ordinary schools; to promote the early identification and intervention which will ensure the maximum success of the rehabilitation process; to ensure the support and active participation of the children's parents and community through an education and information campaign (Government of Botswana, 1994, p. 38).

Two important recommendations in the RNPE of 1994 include the need for each school to have a senior teacher whose responsibility is to oversee the education of students with disabilities as well as coordinate a School Intervention Team (SIT) and the recommendation that

all teachers should be trained in aspects of special education during pre-service or in-service training programs. Before the approval of this policy, education for students with disabilities was primarily the responsibility of Non-Governmental Organizations (NGOs). The establishment of a special education unit in 1984 under the Ministry of Education, later elevated to a division in 1994, was an important step towards the coordination of special education services for students with disabilities (Abosi, 2000). The government of Botswana continued to show interest in the welfare and education of students with disabilities by building and supporting special schools and resource centers, and the introduction of a special education program at the University of Botswana (UB) which prepares teachers to work with learners with disabilities.

The mandate of the Division of Special Education is to ensure that all students with special education needs have access to a high-quality education and training that emanates from all-rounded special education programs and services (MOESD, 2011). Within the Division of Special Education, the Central Resource Center (CRC) is responsible for assessment procedures to determine eligibility for special education. Depending on the outcome of the assessment, students may be placed in special schools, special units, stimulation centers, vocational institutions, or regular schools. Although there are many disabilities in Botswana, students who receive special education in schools mainly include those with hearing impairments, visual impairments, learning disabilities, physical disabilities, and intellectual disabilities. Most recently, the Botswana government formulated the Inclusive Education Policy in 2011. It is worth noting that the Salamanca Declaration of 1994 observed the exclusion of people from meaningful involvement in socioeconomic activities which emanated from non-inclusive education programs and led to the Ministry adopting the RNPE to enhance access and equity to quality education for all individuals (Government of Botswana, 2011). Although there have been

some major achievements in the country's education system as demonstrated by increased participation of all children in education since the introduction of the RNPE, gaps in the education practice led to the formulation of the Inclusive Education Policy. Inclusive education is founded on the philosophy that all students, despite their ability or disability status, have a fundamental right to receive education alongside their counterparts in their neighborhood schools (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 1994; 2008). Some important goals of the Inclusive Education Policy include calling for all students to complete basic education and advance, where possible, to senior secondary education and/or higher education or to vocational training; aiming for teachers to be equipped with the skills and resources that enable students with varying abilities to learn effectively; and calling for a collaborative work between the government, NGOs, and private sector to develop and maintain an inclusive policy framework (Government of Botswana, 2011). To achieve the goals mentioned above, the government is committed to ensuring that significant steps are taken to modify students' education, provision of appropriate accommodations, improvement of skills development and vocational training, and provision of appropriate learning/teaching aids and resources.

It is worth noting, however, that the implementation process of the Inclusive Education Policy is not easy. Challenges in schools regarding the successful implementation of inclusive education practices in Botswana have been found to include the majority of teachers being more comfortable with the inclusion of students with mild disabilities than those with severe to profound disabilities, inadequate special education preparation and training for teachers, shortage of resources, and large class sizes (Mukhopadhyay, Nenty, & Abosi, 2012). Moreover, when investigating the attitudes of teachers in Botswana schools concerning inclusive education,

researchers found that teachers had unfavorable attitudes towards inclusion (e.g., Brandon, 2006; Chhabra, Srivastavs, & Srivastava, 2010; Mangope, 2002). Given the need for inclusion of students until completion of senior secondary school, it is crucial to point out that the paucity of research on inclusive education implementation challenges mainly focused on primary schools and failed to consider the challenges that may arise at secondary schools. There is little empirical data concerning the number of students with disabilities who receive special education services in Botswana secondary schools. Dart (2007) found that the proportion of students who received appropriate special education supports and services in special education units at the junior secondary level was less than 1%, and only a limited number of students with hearing impairments or visual impairments progressed to senior secondary schools. Moreover, Casey (1998) conducted a study on students with disabilities' access to vocational education and training in Botswana, and concluded that although national policies supported and promoted enhanced accessibility to vocational education and training for individuals with disabilities, only a few secured this access. Poor accessibility was explained through several reasons such as limited access to school, limited access to the school curriculum, limited training facilities, low-quality training in rehabilitation training facilities, and inadequate funding of vocational training institutions. Although this study is about two decades old, many of its findings still apply today, especially for individuals with severe disabilities.

Postsecondary Transition in Botswana

Future planning and preparation of individuals with disabilities usually require a paradigm shift, a change of mindset, as well as critical assessment from every participating individual. Post school programs shift from simply overcoming deficits and addressing developmental norms to transition objectives. Transition programs taking into account the impact

of an individual's disability focus on activities and services that take advantage of the students' strengths, preferences, priorities, abilities, shortcomings, and interests. It is critical to note that the process of supporting an individual with a disability in a postsecondary institution or work environment may differ from high school criteria. If students with disabilities are to experience successful transition, then the roles of high schools and postsecondary institutions should be fully understood (Charema & Johnson 2010). Proper planning of transition at high school encompasses students' mastery of several career development activities that are compatible with their disabilities. Education professionals and researchers have advanced that several elements such as social, academic and interpersonal skills are essential and apply to youth with disabilities (Timmons, Whitney-Thomas, McLntyre, Butterworth, & Allen. 2004). Through these skills, it is necessary to combine situational and personal determinants with life's responsibilities and changes to construe career development across the lifespan.

Although there are challenges with transition planning, in developed countries transition plans can be developed and implemented with great success. For instance, the Threshold Transition Program was successfully put into practice in the United States (Jamieson, Peterson, Krupa, McEachen, & Topping. 1993). However, it is difficult to say the same about developing countries like Botswana. As indicated previously, in Botswana, the National Policy on Education and the Revised National Policy on Education (RNPE) align with the National Development Plans. The education policy framework centers around these policy documents (MOESD, 2015). The RNPE emphasizes the need for educating and training all individuals from childhood to adulthood, as well as the provision of appropriate, equitable and quality education. One of the main goals of this policy is the effective preparation of all learners for life, citizenship, and employment. Even though the government calls for stronger ties between education and work,

the policy does not give clear guidelines on what needs to be done to prepare students with disabilities for adulthood and the world of work. Likewise, the Inclusive Policy on Education calls for addressing the educational needs of all learners including those with disabilities beyond secondary school but fails to give specific directions of what schools should do to prepare students for postsecondary success.

While a majority of the developing countries specifically in Southern Africa can have well-written transition plans, the implementation process is hindered by a shortage of resources, shortage of qualified personnel, high rates of unemployment, limited postsecondary education institutions, few employment opportunities, and negative social attitudes and beliefs toward disability. In developing countries, career counseling provides referrals to postsecondary education, vocational training, and social services. There is a lack of outreach programs into rural and urban areas to help students with disabilities become familiar with universities/colleges and employment settings so that they have adequate knowledge before making post-school choices. Even though career counselors provide information on postsecondary education options, career choices as well as the academic and occupational training requirements to be successful in the world of work, many students with disabilities are not aware of these services. Counseling services help individuals to become more aware of their limitations and strengths and the choices available to guide their choice-making (Corey, 2013; Rubin & Roessler, 2008).

Preparation of youth for employment is a critical role for schools. However, many high schools in developed countries underscore postsecondary education preparation, which usually diverts attention from actual employment readiness (Beresford 2004; Berkowitz 2009). In contrast, developing countries, specifically in Southern Africa, emphasize sheltered employment. Sheltered employment is not beneficial for those with disabilities since people without

disabilities have also saturated that market (Charema and Johnson 2010). Although having a college degree provides an important advantage toward securing meaningful and rewarding employment for many people, postsecondary education in developing countries may not be the ultimate goal or even possible option for many youths with disabilities.

CHAPTER 3 – METHODOLOGY

This chapter provides information about the research methods of the study. The chapter begins by restating the purpose of the study and research questions. In addition, the research design, study sample, research instrument, data collection procedures, and data analysis procedures are discussed. Finally, the chapter ends with a summary.

Purpose of Study

The main purpose of this study was to explore the experiences and views of secondary school teachers and vocational teachers in assisting students with disabilities to transition from secondary and vocational school to higher education and/or employment in Botswana. The study explored teachers' knowledge, beliefs, and perceptions about what practices and principles contributed to or impeded successful postsecondary education and/or employment outcomes of students with disabilities, specifically those with visual impairments, at secondary schools. Through this study, information was obtained from general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers on their knowledge, experiences, and practices that resulted in successful post-school outcomes. The study focused on how secondary students with disabilities were prepared to transition successfully to assume adult roles. It included students' preparation and planning for senior secondary school or technical, vocational education and training, postsecondary education, and employment. The study also aimed at exploring teachers' ideas and suggestions, as well as the kinds of barriers that impeded successful transition outcomes. Furthermore, the study examined the roles and efforts that teachers made in supporting students with disabilities to enjoy an improved quality of life. Both academic and functional curricula taught to students and other transition services aimed at improving postsecondary outcomes were explored.

An important objective of this study was to determine differences among school regions regarding the experiences and views of secondary school teachers and vocational teachers in helping students with visual impairments to transition from secondary school to higher education and/or employment. To meet this purpose, this study (a) explored teachers' knowledge, beliefs, and perceptions about best practices regarding successful postsecondary education and/or employment outcomes of students with visual impairments at secondary and vocational schools, (b) investigated the differences among teachers in different school regions as well as between general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers on programs and practices that resulted in successful post-school outcomes, and (c) based on the findings of the study, the researcher anticipated to assist in developing a framework for transition programs and services that would help in improving post-school outcomes for youths with disabilities. This study used work conducted by Dogbe (2015) with replication elements. Dogbe's dissertation research explored teachers' perceptions about transition programs for secondary students with disabilities in Ghana. Unlike Dogbe's study, the current study put a major emphasis on students with visual impairments and did not take into account administrators' views; instead, it considered the views of guidance and counseling teachers as well as vocational teachers. Successful accomplishment of the purpose of the study involved examining differences between the dependent and independent variables.

Research Questions

To guide this study, a total of four research questions were formulated. Since Botswana has no legal mandate concerning secondary transition planning and programming, the overall views of respondents were explored first in primary questions, followed by secondary

comparative questions that examined differences between different respondents about the transition process.

According to Simon (2011), the aim of asking comparative research questions is to help a researcher identify whether there are significant differences between two or more groups.

Identification of group differences may rely on one or more variables. Although generally a comparative research question may be used to quantify a single variable, it may be credible to use two or more variables depending on the needs of the researcher if appropriate. For example, comparative research questions may begin by asking if there are differences between groups concerning a specific dependent variable (Durrheim, 1999; Simon, 2011). The key research questions for this study were:

1. Are secondary teachers in Botswana knowledgeable of transition planning and programming that helps to improve the post-school outcomes of students with disabilities?
 - a) Are there differences between special education, general, and guidance and counseling teachers in their knowledge concerning effective practices for the transition of secondary school students with disabilities in Botswana?
2. Are secondary and vocational teachers in Botswana helping students with disabilities to transition successfully to postsecondary and/employment environments?
 - a) Are there differences among secondary and vocational teachers between different school regions concerning transition preparation beliefs and perceptions for secondary and vocational school students with disabilities in Botswana?
3. Are there specific transition practices and services that prepare students with visual impairments for postsecondary education and/or employment in Botswana?

- a) Are there differences among the beliefs and perceptions of general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers regarding transition practices for preparing students with visual impairments to have successful postsecondary education and/employment in Botswana?
- 4. Are there barriers that impede successful implementation of evidence-based transition practices for students with visual impairments in Botswana?
 - a) Are there differences between special, general, guidance and counseling teachers, and vocational teachers about their perceptions of barriers that impede successful implementation of evidence-based practices for students with visual impairments in Botswana?

Research Design

This study utilized a quantitative research design. According to Creswell (2015), quantitative research designs reflect post-positivist philosophical assumptions. For example, determinism advances that investigating the associations between and among variables is key to responding to questions as well as hypotheses through surveys and experiments. The decrease to a tight set of variables, controlled through research design or statistical analysis, allows for measures or observations that can be used to test a theory.

This study utilized a survey research method. A survey design provides a quantitative or numeric description of trends, behavior, or perceptions of a given population by conducting a study on a sample of that population. From the results of the sample, the researcher will generalize or make inferences to the population. Thus, the purpose of a survey design is to make a generalization from a sample to a population, so as to make inferences concerning some characteristic, attitude, or opinion of the population (Creswell, 2012). Survey designs are

advantageous in that they are cost effective, and they lead to a rapid turnaround in data collection. Survey designs can be easily adapted to meet a population's needs. Cohen, Manion, and Morrison (2004) contended that the survey tended to have better reliability because its anonymity promoted more honesty in comparison to interviews. Fowler (2014) explained that one of the advantages of a survey was the presence of standardized measurements, which ensured consistency across all respondents, thereby resulting in the acquisition of comparable information about everyone described. With the absence of such measurement, it is difficult to produce meaningful statistics. Fowler (2014) further cautioned that unless there was the availability of staff resources and expertise to conduct survey research, the data obtained would not be good enough. A common challenge encountered in survey research is the production of precise estimates through selecting only a relatively small sample of the entire population, while also keeping in mind the social, economic, and technological contexts related to countries, as well as survey populations in those countries (deLeeuw, Hox, & Dillman, 2008). Even though conducting a survey can be relatively simple, deLeeuw et al. (2008) contended that such simplicity can be deceptive. Survey research involves challenging issues surrounding how many individuals to include in a sample for a fair and accurate description of the whole population, how to sample participants, what questions to ask including how to ask them, how to collect data, and how to analyze and report results.

Although the administration of surveys is relatively challenging, data can be collected from a large number of participants. In addition, participants can be asked a variety of questions through a survey, thus allowing for extensive flexibility when analyzing data. Through surveys, an enhanced level of general capability to represent a large population is achieved (Fowler, 2009). As a result of high response rates to surveys, gathered data presents a better description of

the relative attributes of the population in question. Also, survey designs allow for the description of trends in the data in contrast to offering rigorous explanations. The survey was cross-sectional, with the data collection occurring at one point in time. According to Rindfleisch, Malter, Ganesan, and Moorman (2007), a cross-sectional survey obtains information from a specific population at a distinct time, in contrast to a longitudinal survey which gathers information over an extended period. That is, a cross-sectional design is used to collect data concerning the current attitudes, perceptions, or beliefs of a specific population whereas a longitudinal design is utilized to study a particular population over time. The researcher collected data regarding teachers' opinions, beliefs, and attitudes on transition planning practices in Botswana. Hence, a cross-sectional survey was vital for the collection of data from the study sample in a relatively short time frame (Creswell, 2012; Rindfleisch et al., 2007). The data were collected through paper and pencil surveys administered by the researcher. Since transition practices and principles for students with disabilities are fairly unfamiliar concepts to teachers in Botswana, the researcher had to visit selected schools to explain the purpose of the study and then administered the paper-based surveys after teachers had completed their informed consent forms. The Ministry of Basic Education, the Ministry of Employment, Labor Productivity, and Skills Development, and the Ministry of Tertiary Education, Research, Science, and Technology were crucial in connecting the researcher with the corresponding schools and respondents. Although online surveys are more cost-effective, paper surveys were preferred because of the unreliable Internet connectivity particularly in rural areas of Botswana. Additionally, current research indicated that people often exhibited unwillingness and a lack of interest to respond to online surveys (Lefever, Dal, & Matthiasdottir, 2007; Mau & Opengart, 2012). "Online surveys are much less likely to achieve response rates as high as surveys administered on paper – despite

the use of various practices to lift them” (Nulty, 2008, p. 302). The paper survey, therefore, helped to reach respondents who were difficult to reach. Despite the distinct advantages and disadvantages of paper and online surveys, some scholars have generally reached the conclusion that the two survey types are equivalent (e.g., Gosling et al., 2004; Lewis, Watson, & White, 2009).

Sample and Sampling Method

The population of this study was junior secondary teachers, senior secondary teachers, and vocational education teachers in Botswana. Among these teachers were general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers. That is, there were seven subgroups of teachers (i.e., junior secondary special education teachers, junior secondary general education teachers, junior secondary guidance and counseling teachers, senior secondary special education teachers, senior secondary general education teachers, senior secondary guidance and counseling teachers, and vocational teachers). The researcher implemented census and purposeful sampling in two school regions, Kgatleng and South East, from a total of 10 regions.

Purposive sampling is a non-probability sampling technique that involves the selection of a sample on the basis of a population characteristics and the purpose of the study (Palys & Atchison, 2008). Purposive sampling may also be referred to as judgmental or selective sampling. The primary objective of purposive sampling is to target specific population characteristics of interest that will best help a researcher to answer his or her research questions (Patton, 2002). The Kgatleng region was selected based on the fact that it is the only region in Botswana with secondary schools that have special education units for students with visual impairments. Although all the 11 secondary schools in Kgatleng (i.e., 10 junior schools, one

senior school) and two vocational schools were expected to form part of the sample, one junior secondary school declined to participate. Another region that was considered was South East because the capital city Gaborone is in the center of this region and, therefore, a higher probability of the presence of special education teachers. There were 27 secondary schools (i.e., 21 junior schools, six senior schools) and four vocational schools in the South East region. Although all the 27 secondary schools and five vocational schools in this region were expected to participate in the study sample, only 15 junior secondary schools, three senior secondary schools, and all four vocational schools agreed to participate. Thus, a total of 24 junior schools, four senior schools, and five vocational schools were included in the sample. The anticipated total of participants was 1,760 teachers based on paper and pencil survey response rated at 100%, and of these teachers only 1,186 actually completed the survey, thus yielding a return rate of 67.4% (see Tables 1 and 2). The targeted number of general education teachers in junior secondary schools was 1,079 and, of this number, 662 (61.4%) participants actually completed the survey. There were 57 special education teachers in junior secondary schools and all 57 (100%) participants completed the survey. Moreover, the total number of guidance and counseling teachers in junior secondary schools was 51, and all 51 (100%) participants completed the survey. Regarding senior secondary schools, there were 315 general education teachers, 23 special education teachers, and 22 guidance and counseling teachers, and, of these teachers, 213 (67.6%), 23 (100%), and 22 (100%) respectively completed the survey. The number of vocational teachers in vocational schools was 213 and 158 (74.2%) participants completed the survey. These participants were responsible for working with students with and without disabilities in Botswana schools to help them achieve successful post-school outcomes.

Permission Process

Letters inviting teachers to participate were sent to the Botswana Ministry of Basic Education, Ministry of Employment, Labor Productivity, and Skills Development, and Ministry of Tertiary Education, Research, Science, and Technology in order to seek approval from the permanent secretaries of these ministries in February of 2017. For secondary teachers, permissions were sought from the Ministry of Basic Education and the Ministry of Employment, Labor Productivity, and Skills Development and Ministry of Tertiary Education, Research, Science, and Technology for conducting research in vocational schools. Permissions were also sought from the regional education directors of Kgatleng and South East. Letters seeking permission to conduct the study in the selected schools were sent to the headmasters of the various school sites in April of 2017. The content of the letters included an explanation of the purpose of the study along with the request for assistance in identifying general education teachers, special education teachers, and guidance and counseling teachers in junior and secondary schools, as well as encouraged them to participate in the study. The researcher also prepared informed consent forms for issuing to the study sample to sign if they chose to agree or decline participation in the study. Vocational teachers from selected vocational training schools also formed part of the study sample and likewise, permissions were sought from the principals of these institutions. After approval of the study by the Ministry of Basic Education, Ministry of Employment, Labor Productivity, and Skills Development, Ministry of Tertiary Education, Research, Science, and Technology, regional education directors, and school administrators, the school headmasters and principals were contacted via telephone, requested to brief their teachers about the study, and to obtain the number of teachers and their positions within the schools. All

signed and dated permissions were kept on file and shared as part of the Institutional Review Board (IRB) submission and approval process.

Instrumentation

The survey instruments used to collect data from junior secondary, senior secondary, and vocational teachers were developed by the researcher specifically for this research guided by the professional literature and based on input from professionals in the field of special education. Additionally, permission was sought from Dr. Daniel Dogbe to incorporate components of his 2015 study surveys into the new surveys. The survey instruments are located in Appendix OO, Appendix PP, and Appendix QQ. The major content areas in the survey instruments were the purpose of the study, the definition of terms, teacher demographics, and teachers' transition knowledge, beliefs, and perceptions items. Close-ended questions were utilized in the surveys. The questions utilized a Likert-type scale or multiple options depending on the type of question being asked. Multiple option questions required the respondents to choose one response or more from a list of possible options as appropriate. Transition knowledge, beliefs, and perceptions items were aligned with IDEA (2004) transition requirements, the Halpern (1994) transition definition, and Kohler's (1996) essential components for effective transition planning and programming, namely student-focused planning, student development, program structure, parent involvement, and interagency collaboration. Survey items were designed to elicit information about best practices regarding transition planning and programming, perceptions towards postsecondary planning for students with visual impairments, experiences of the participants in transition planning and programs, the transition implementation process, as well as related challenges. These items were presented in the format of a five-point Likert scale from strongly disagree to do not know (i.e., 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly

Agree, 5 = Do Not Know). Student-focused planning items included the roles of teachers in the development process of individualized planning approaches and student participation. The student development component focused on items concerning student assessment procedures; the teaching of academic, social, emotional, and occupational skills; as well as student supports. Family engagement items focused on teachers' involvement of families during transition planning, empowerment of families, and preparation of families to fully engage in the transition planning process. In addition, the program structure items included characteristics of transition programs, evaluation of the programs, strategic planning, policies and procedures, allocation of resources, and the school climate. Lastly, interagency collaboration items were meant to elicit information on teachers' views and practices regarding collaborative framework and collaborative service delivery in the transition planning process. As indicated earlier, Botswana does not have a legal mandate regarding transition planning practices and principles for students with disabilities. Based on this fact, the survey took into account the academic and functional coursework offered in the selected schools. More specifically, the structure of the survey was based on five sections as discussed below.

Section 1

This section provided important information about the study which included the purpose and rationale of the study, inclusion criteria, and the rights of and expectations from the respondents. A summary of the significance of the study and the anticipated time for completing the survey were also included.

Section 2

This section provided background information of the participants. The demographic variables of the participants were found in this section. They included the gender of the

participants, age, teaching experience, highest educational qualification, type of teacher, education region, and position held in the school. The set of questions found in this section were items 1 to 15.

Section 3

Section 3 began by providing definitions of key terms and/or phrases that were unlikely to be familiar to the respondents. The section also comprised of survey items that mainly focused on the beliefs, knowledge, and views of the participants concerning transition planning practices and principles that resulted in successful post-school outcomes for students with disabilities. The participants were expected to rate their degree of agreement with the items provided by choosing an appropriate response. A five-point Likert scale from strongly disagree to do not know (i.e., 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree, 5 = Do Not Know) was utilized in this section. For junior secondary teachers, senior secondary teachers, and vocational teachers, the section comprised 31 items, 30 items, and 34 items respectively. Items on subsections A and B were critical for answering research question 1, while items on subsection C addressed research question 2.

Section 4

This section focused on teachers' beliefs about specific transition practices for students with visual impairments, the school curriculum, as well as how the curriculum helped students with disabilities to transition successfully to post-school outcomes. The academic and functional coursework offered by the participating schools were taken into consideration. This helped to tailor the transition planning process to the educational context of Botswana. This section contained 31 items, 25 items, and 26 items for junior secondary schools, senior secondary

schools, and vocational schools respectively. The survey items in this section addressed research question 3.

Section 5

This part was the last section of the survey instrument and it focused on challenges and barriers that teachers encountered or anticipated as they worked with students with disabilities in the transition planning process. Teachers shared their views about what factors negatively impacted transition planning, service provision, and therefore post-school outcomes for students with disabilities. There were nine items in this section, which addressed research question 4.

Survey Development and Review

The development of the survey included several stages. The questions in the research instrument were developed based on significant findings of the scholarly literature. That is, the IDEA (2004) transition requirements, Halpern (1994), and Kohler's (1996) transition planning model formed the basis of the survey items. Moreover, topics from the literature on transition such as evidence-based practices and predictors of post-school outcomes (Test et al., 2009), transition planning, services, and outcomes for students with disabilities related to postsecondary education or employment (Benz et al., 2000; Brooke et al., 2009), post-school outcomes of transition-age youths with visual impairments (Connors et al., 2014; McDonnall, 2010a, 2010b, 2011), and transition challenges for students with disabilities (Reed & Curtis, 2011) helped to yield a bank of survey questions. The cultural context of Botswana was taken into consideration when designing the research instrument. As noted, Botswana has no policy with specific special education transition guidelines and this meant that some key terms and/or phrases used in the IDEA (2004) definition of transition services had to be modified to promote better understanding and suit the context of Botswana. The IDEA definition of transition services (34 C.F.R § 300.43

(a), 2004) includes the phrase “a coordinated set of activities” which was replaced by “a variety of activities,” and the phrase “within a results-oriented process” which was replaced by “within specific goals and objectives” as in Dogbe (2015). A more relevant definition to the context of Botswana by Halpern was adopted for this study. According to Halpern, transition refers to:

A change in status from behaving primarily as a student to assuming emergent adult roles in the community. These roles include employment, participating in postsecondary education, maintaining a home, becoming appropriately involved in the community, and experiencing satisfactory personal and social relationships (Halpern, 1994, p. 117).

Expert Panel

A total of seven experts who worked in higher education reviewed the instrument to verify the content validity and their comments were incorporated into final instrument revisions. These experts were sent emails that defined their roles, including directions and questions for their input. In response, the experts sent emails indicating their agreement to participate in the review process. According to Dillman, Smyth, and Christina (2009), experts should sign protocol forms or show their agreement to participate in the review process. The experts included Drs. Kerileng Mpuang and Okechukwu Abosi, who were special education professors at the University of Botswana. The other experts identified in the United States with the help of the doctoral committee chair were Drs. David Test, Therea Grossi, Lorna Timmerman, Evette Simmons-Reed, and Nikki Sprunger. Following the review of the survey instrument by the researcher’s doctoral committee, the expert panel was given the survey for further review and feedback. The expert panel members completed the review process in three weeks and provided comments on the face, content, and construct validity of the survey instrument. The experts’ feedback was further used to improve the quality of the instrument.

Pilot Testing

Pilot testing of the survey instrument took place in the United States and Botswana. The researcher, with the guidance of his doctoral committee chair, administered the survey in the United States, while a faculty member at the University of Botswana was responsible for coordinating this process in Botswana to participants who were unable to complete electronic surveys due to poor Internet access. A total of 20 participants, consisting of Special education graduate students and faculty members at Ball State University in the field of special education, took the survey in the United States, whereas a total of 14 participants comprising of special education teachers, University of Botswana faculty members in the Department of Educational Foundations (Special Education), University of Botswana Disability Support Services' staff, and Ministry of Education (Special Education Division) personnel responded to the survey in Botswana. The convenience sample of participants in the pilot study was informed that the researcher was field testing the survey. A pilot study represents an important stage of the research process. The objective of a pilot study is to investigate the feasibility of a research method or data collection instrument intended for use in a larger scale study. A pilot study is "a small-scale test of the methods and procedures to be used on a larger scale" (Porta, 2008). The pilot testing is important to establish the content validity of scores on an instrument and to improve questions, format, and scales (Fowler, 2009). Thus, minor adjustments were made on the survey instrument based on the feedback obtained from the small sample of respondents to make it more user friendly. The pilot test took effect after the Ball State University IRB approval. The pilot study data were used to test the analytic plan and none of the data gained from the pilot study were used in the main study.

Institutional Review Board (IRB) Approval

The Ball State University Institutional Review Board (IRB) is responsible for the protection of the rights and welfare of individuals participating in research. The IRB was responsible for reviewing and approval of the research protocols to ensure that the researcher complied with laws and national standards concerning the treatment of participants in an ethical manner. The researcher submitted the research proposal, survey instruments, and a completed application form in March of 2017 to obtain IRB approval prior to conducting the study. The feedback from the IRB suggested making minor changes to the informed consent forms which included adding the study title at the top of the informed consent forms, substituting the heading “Data Confidentiality” with “Data Anonymity,” as well as including a statement under “Voluntary Participation” indicating that participation in the study would not affect participants’ employment within their schools. After making the suggested changes, IRB approval was granted on March 21, 2017. In addition, the Rinker Center for International Programs at Ball State University was notified of the researcher’s intent to travel abroad and permission was granted.

Survey Procedures

Pilot testing occurred after the approval of the survey instrument by the BSU IRB which was obtained after successful incorporation of the board’s suggestions and feedback. The permissions from the IRB, Department of Special Education, and the Ministry of Basic Education, Ministry of Employment, Labor Productivity, and Skills Development, and Ministry of Tertiary Education, Research, Science and Technology in Botswana allowed the researcher to conduct the main survey. Several steps were followed for administering the survey and for following up to ensure a high response rate. The survey was available for participation in the

summer of 2017. Official letters were sent to the headmasters and principals of the participating schools concerning the study and to notify them of the intent to visit their schools in order to complete the research questionnaire on particular dates. Phone calls were made to the headmasters and principals of the participating schools a week before the actual survey was distributed. The aim of the phone calls was to remind the schools about the survey completion date and time. Once the researcher arrived in a participating school he introduced himself to the school headmaster or principal and briefed him or her about the study and the survey instrument before meeting the participants. After meeting the participants, the school headmaster/principal was asked to step out of the selected meeting place. The participants were briefed about the purpose of the study and reminded of their right to participate, decline, or withdraw from participation at any given time without sharing their reasons with the researcher. Participants were asked to read through informed consent forms, choose to agree or decline taking the survey, sign the consent form, and provide a date. If the participants chose to decline participating in the survey they were asked to return the informed consent form, thanked, and dismissed. Participants who chose to complete the survey were provided with the survey, asked to read through the questions in each section of the survey carefully, and requested to provide appropriate responses by using pencils to circle the letter or number that corresponded to their choice for each question. Once participants had completed answering the questions, they were asked to return the surveys to the researcher, thanked for their participation, and dismissed. The survey administration period occurred during morning teacher briefings or study time. The survey took about 20-25 minutes to complete and the entire administration period occurred from May 22, 2017 to July 10, 2017.

For the purpose of maintaining participants' confidentiality and easy allocation, the surveys were color coded and numeric coded. The participants in each school were also notified of the reasons for the coding of surveys. The surveys were printed on different paper colors for the distinct types of schools in each education region. Surveys for junior secondary schools, senior secondary schools, and vocational schools in Kgatleng were printed in green, blue, and yellow paper respectively. In contrast, junior secondary schools, senior secondary schools, and vocational schools in the South East region received pink, coral, and golden rod surveys. Moreover, a four-digit numeric code was developed for individual participants in each school. This code consisted of the education region, type of school, participant's gender, and teacher's position respectively. Kgatleng and South East regions were represented by codes 1 and 2 respectively, while junior secondary schools, senior secondary schools, and vocational schools were represented by codes 1, 2, and 3 respectively. Male and female participants were represented by codes 1 and 2 respectively, and codes 1, 2, 3, and 4 represented general educators, guidance and counseling teachers, special educators, and vocational teachers respectively. In general, six color codes were utilized to improve the assignment of the surveys to different types of junior, senior, and vocational schools and numeric coding was utilized to identify participants in each school.

When collecting the surveys from respondents, the researcher immediately verified if all relevant items in the survey had been completed. The researcher collected all completed questionnaires and consent forms, sealed them in envelopes, and finally brought them to the United States for analysis in July 2017. Before analysis, each participant's responses were transferred to a bubble/scantron sheet. The bubble sheets were then scanned using a scantron machine, data saved in a Microsoft Excel spreadsheet, and imported to SPSS for analysis. Since

there was a likelihood of inaccuracies when transferring the data, the researcher double-checked the entries to verify if data were entered accurately. Moreover, an independent person was assigned to assist with checking if the data were accurately transferred which indicated that no errors were found. This process helped to enhance the reliability of the data transfer, as the independent person randomly selected 20% of the cases in order to check the accuracy of the data transfer. The reliability of the data transfer was calculated by dividing the number of case agreements by the total number of agreements and disagreements, yielding 100% reliability.

Data Analysis

Information about the number of participants who did and did not complete the survey was reported. The survey items and responses were coded and analyzed using the Statistical Package for Social Sciences (SPSS) Version 24. SPSS is a popular data entry and analysis package used in social sciences and was accessible to the researcher through Ball State University. SPSS is a popular software in academic and business circles, the most broadly utilized package of its kind, and a versatile package that makes it possible to conduct many kinds of analyses, data transformations, as well as output types (Arkkelin, 2014). Participants' responses to demographic variables were analyzed using descriptive statistics and consideration of percentage scores.

The Independent Variables

The independent variables of this study were the positions of teachers (i.e., special education teachers, general education teachers, guidance and counseling teachers, and vocational teachers), types of schools (i.e., junior secondary, senior secondary, vocational school) and education region they work in (i.e., Kgatleng, South East). The descriptive variables included participants' age, gender, highest educational qualification, and teaching experience.

The Dependent Variables

The dependent variables were the views and beliefs of teachers regarding senior secondary education, vocational training, postsecondary education, and employment of students with disabilities; teachers' knowledge and experiences about effective ways to support the transition of students with disabilities to experience successful postsecondary outcomes; and perceptions of barriers or challenges encountered by teachers regarding transition practices and supports for students with visual impairments in Botswana schools.

Analytic Plan

A descriptive analysis of data for the independent and dependent variables was conducted. This analysis indicated the frequencies, percentages, means, and standard deviations for these variables. Specifically, demographic variables related to participants' gender, age, highest education qualification, and teaching experience were considered. The analysis was based on teachers' position (i.e., general education teachers, special education teachers, guidance and counseling teachers, vocational teachers). Participants' age was divided into five groups (i.e., 20-30, 31-40, 41-50, 51-60, 60+ years). Participants' highest educational qualification was classified into six groups (i.e., certificate, diploma, bachelor's degree, master's degree, doctoral degree, other). Lastly, participants' years of teaching experience was classified into five categories (i.e., 1-5 years, 6-10 years, 11-15 years, 16-20 years, more than 20 years). Response options for the participants regarding demographic questions were mixed. These questions were dichotomous, interval, and the participants circled the letter corresponding to the choice that best described them. Likert-scale items were assigned numerical codes as follows: Strongly Disagree = [1] (0-25%); Disagree = [2] (26-50%); Agree = [3] (51-75%); Strongly Agree = [4] (76-100%); and Do Not Know = [5]. Items in which participants indicated that they had no knowledge of a

survey item (Do Not Know) were separated and analyzed as descriptive data, while also considering the implications of the study concerning participants' knowledge level on transition. Recording of the database with "Do Not Know" identified as system missing allowed for statistical analysis using a true four-point Likert scale, Strongly Disagree = [1] (0-25%); Disagree = [2] (26-50%); Agree = [3] (51-75%); and Strongly Agree = [4] (76-100%). When 25% or more of the participants selected "Do Not Know" as their answer to a survey item, this represented a need for professional development and training to equip them with the necessary skills and knowledge on transition practices and principles.

In addition, there was a more advanced inferential analysis. An alpha level of .05 was set for all inferential statistics. The reliabilities of the various survey items (Cronbach's alpha) were calculated and found to be above .80. Cronbach's alpha measures the internal consistency of a scale (Iringa-Bistolas, Schalock, Marvin, & Beck, 2007). Thus, it assesses whether or not a set of survey items measure the same underlying construct. A high alpha means that the items assess a single underlying construct, whereas a low alpha shows that the items assess numerous constructs. The reporting of results for each research question began with the descriptive analyses of "Do Not Know" responses to survey items based on participants' position (i.e., general education teacher, special education teacher, guidance and counseling teacher, vocational teacher), followed by school type (i.e., junior secondary school, senior secondary school, vocational school), and then school region (i.e., Kgatleng, South East). The "Do Not Know" analyses were followed by analyzing data by position, school type, and school region using non-parametric tests instead of parametric tests. The assumptions of independence, normality, equality of variance, and scale of measurement are important for parametric tests such as t-tests and one-way analysis of variance (ANOVA) (Hinkle, Wiersma, & Jurs, 2003; Huizingh, 2008).

The assumption of independence means that scores on the dependent measure are randomly and independently sampled. Normality implies that scores on the dependent measure come from a population where scores are normally distributed. Equality of variance means that the independent samples of scores come from populations with equal variances, whereas scale of measurement implies that scores on the dependent variable are measured on an interval or ratio scale. The assumptions of normality, independence, and equality of variance were violated for most survey items.

When samples have unequal group sizes, this can cause serious reductions in statistical power. Non-parametric tests were utilized in this regard and these are distribution-free statistical tests that are not based on parameters (i.e., means or standard deviations) or assumptions about the underlying data distribution (Howell, 2007). Instead, they are based on amounts such as Chi-square or mean ranks. Non-parametric tests are just as powerful as traditional tests and, under situations of violated assumptions, can be much more powerful.

For comparing teachers' views, beliefs, and knowledge between school regions on transition practices and students' preparation for successful post-school outcomes, Mann Whitney *U* tests were used. Because the Mann Whitney *U* is a non-parametric test, no assumptions need to be made regarding the normality of the population distributions. However, in addition to independence, the test rests on the assumption that the population distributions have identical shapes. When the assumption of homogeneity of variance has been violated, the Mann Whitney *U* is useful in this regard (Field, 2012; Howell, 2007). Also, the Kruskal-Wallis test of *k* groups was used to evaluate mean differences between the knowledge, views, and beliefs of participants by position (i.e., general education teachers, special education teachers, guidance and counseling teachers, vocational teachers) and school type (i.e., junior secondary

schools, senior secondary schools, vocational schools) regarding transition practices, principles, and barriers. The Kruskal-Wallis test does not rest on the assumption of normality concerning unequal and small sample sizes (Field, 2012). The Mann Whitney U post hoc was used as a follow-up for a significant Kruskal-Wallis test. Where there were significant differences between groups, the strengths of the relationships between the independent and dependent variables were reported (effect sizes). Cohen's d and w , were used to report effect sizes for significant Mann Whitney U and Kruskal-Wallis tests respectively. Cohen's d is a measure of effect size for reporting the standardized difference between two means. As one of the several indices used to measure the standardized difference between means, Cohen's d does not depend on sample size (Iringa-Bistolas et al., 2007). It is calculated by obtaining the difference between two group means and then dividing this difference by the pooled standard deviation of the two groups.

Finally, the results of the data analysis were presented in tables and interpreted from the statistical tests. The researcher drew conclusions from the results for the research questions and the broader significance of the results. The researcher then reported how the results answered the research questions. The implications of the findings for practical purposes or future research concerning the topic were discussed. This included using the results to draw inferences and conclusions.

Summary

This study was conducted as a survey research design and utilized census and purposive sampling methods. Secondary and vocational teachers in the Kgatleng and South East school regions participated in the study. The research methods chapter provided a sound understanding of how the researcher conducted the proposed study to get relevant information about teachers' perceptions and experiences on postsecondary transition planning. The researcher utilized a quantitative research design in which a self-developed paper survey was used to collect data. The following chapter provides relevant and detailed information about the results of the study.

CHAPTER 4 – RESULTS

The main purpose of this study was to explore the experiences and views of secondary school teachers and vocational teachers in assisting students with disabilities to transition from secondary and vocational school to higher education and/or employment in Botswana. The study explored teachers' knowledge, beliefs, and perceptions about what practices and principles contributed to or impeded successful postsecondary education and/or employment outcomes of students with disabilities, specifically those with visual impairments, at secondary schools. Through this study, information was obtained from general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers on their knowledge, experiences, and practices that resulted in successful post-school outcomes. The study focused on how secondary students with disabilities were prepared to transition successfully to assume adult roles. It included students' preparation and planning for senior secondary school or technical, vocational education and training, postsecondary education, and employment. The study also aimed at exploring teachers' ideas and suggestions, as well as the kinds of barriers that impeded successful transition outcomes. Furthermore, the study examined the roles and efforts that teachers made in supporting students with disabilities to enjoy an improved quality of life. Both academic and functional curricula taught to students and other transition services aimed at improving postsecondary outcomes were explored.

An important objective of this study was to determine differences among school regions regarding the experiences and views of secondary school teachers and vocational teachers in helping students with visual impairments to transition from secondary school to higher education and/or employment. To meet this purpose, this study (a) explored teachers' knowledge, beliefs, and perceptions about best practices regarding successful postsecondary education and/or

employment outcomes of students with visual impairments at secondary and vocational schools, (b) investigated the differences among teachers in different school regions as well as between general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers on programs and practices that resulted in successful post-school outcomes, and (c) based on the findings of the study, the researcher anticipated to assist in developing a framework for transition programs and services that would help in improving post-school outcomes for youths with disabilities. This study used work conducted by Dogbe (2015) with replication elements. Dogbe's dissertation research explored teachers' perceptions about transition programs for secondary students with disabilities in Ghana. Unlike Dogbe's study, the current study put a major emphasis on students with visual impairments and did not take into account administrators' views; instead, it considered the views of guidance and counseling teachers as well as vocational teachers. Successful accomplishment of the purpose of the study involved examining differences between the dependent and independent variables.

This study uses data conducted from Botswana using a survey design that collected data from junior secondary teachers, senior secondary teachers, and vocational education teachers. The participants of the study were from 24 public junior secondary schools, four public senior secondary schools, and six public vocational schools. Although all public junior secondary and senior secondary schools in the Kgatleng and South East education regions were expected to participate in this study, some schools declined participation. The Kgatleng region had 10 junior secondary schools, one senior secondary school, and two vocational schools, with one junior secondary school declining to participate. In the South East region 31 schools were asked to participate (21 junior secondary schools, six senior secondary schools, and four vocational schools; however, six junior secondary schools and three senior secondary schools declined

participation. Thus, a total of 34 census sampled schools (24 junior secondary schools, four senior secondary schools, and six vocational schools) participated. The 34 sampled schools were visited over a period of seven weeks, with a target population of 1,760 teachers, administering paper surveys to participants. Census and purposeful sampling were used in two school regions to gain insight about transition planning and programming from general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers working with students with disabilities in public junior, senior, and vocational schools, with participant teachers ranging in age from 21 to 65 years. Out of the possible participants contacted, 1,186 ($N=1186$) completed the survey for a response rate of 67.4%. There were 572 nonparticipants (32.5%), with 511 (29.0%) absent at the time of administration, while 61 (3.5%) declined participation

The survey items and responses were coded to enhance the analysis of data using SPSS Version 24. The targeted number of general education teachers in junior secondary schools was 1,079, with 662 (61.4%) participants completing the survey. All 57 special education teachers in junior secondary schools completed the survey (100%). Moreover, all 51 guidance and counseling teachers in junior secondary schools completed the survey (100%). Among senior secondary schools, there were 315 general education teachers, 23 special education teachers, and 22 guidance and counseling teachers, with 213 (67.6%), 23 (100%), and 22 (100%) respectively completing the survey. Among the 213 available vocational teachers, 158 (74.2%) completed the survey.

Internal Consistency

The reliabilities of the various survey items (Cronbach's alpha) were calculated to determine the internal consistency of the survey items. Cronbach's alpha (α) measures the internal consistency of a scale (Iringa-Bistolas et al., 2007) as it assesses the extent to which a set

of survey items measure the same underlying construct. Cronbach's alpha coefficients range from 0 to 1 and a higher score indicates higher reliability of a generated scale. According to Nunnally (1978), 0.70 is regarded as an acceptable reliability coefficient, although lower coefficient values are sometimes found in the literature. For example, alpha values higher than or equal to 0.60 are acceptable for social sciences (Rosner, 2006). Section 3 of the survey, focused on the beliefs, knowledge, and perspectives of the participants concerning transition planning practices and principles that resulted in successful post-school outcomes for students with disabilities, produced Cronbach's alpha of 0.926, 0.886, and 0.905 for junior secondary school, senior secondary school, and vocational school surveys, respectively. Section 4 examining teachers' beliefs about specific transition practices for students with visual impairments, the school curriculum (including academic and functional coursework), as well as beliefs about how the curriculum helped students with disabilities to transition successfully to post-school outcomes, yielded Cronbach's alpha of 0.979, 0.953, and 0.944 for junior secondary school, senior secondary school, and vocational school surveys, respectively. Section 5 focused on challenges and barriers that teachers encountered or anticipated as they worked with students with disabilities in the transition planning process. Teachers shared their perspectives on what factors negatively impacted transition planning, service provision, and post-school outcomes for students with disabilities. This section resulted in Cronbach's alpha of 0.882, 0.917, and 0.859 for junior secondary school, senior secondary school, and vocational school surveys, respectively. The overall Cronbach's alpha for junior secondary school, senior secondary school, and vocational school surveys were 0.964, 0.938, and 0.934, respectively.

Table 1

Percentage of Targeted Participants and Survey Respondents

Schools	Targeted Participants		Survey Respondents	
	<i>n</i>	%	<i>n</i>	%
Junior Secondary School	1187	67.4	770	64.9
Senior Secondary School	360	20.5	258	21.8
Vocational School	213	12.1	158	13.3
Total	1760	100.0	1186	100.0

Note. Percentages represent data by category and totals.

Descriptive Statistics

Descriptive statistics based on participants' responses to the survey are presented in Tables 3, 4, and 5. The independent variables of this study were the participants' teaching positions, the types of schools where participants worked, the participants' education region, the participants' age, the participants' gender, the highest educational qualification of participants, the number of years in the teaching profession, and the number of years in participants' current schools. Other descriptive variables included: the type(s) of training participants received, current role of participants in schools, and geographic setting of participants' schools. The majority of survey respondents were from junior secondary schools ($n=770$), followed by senior secondary schools ($n=258$), and lastly vocational schools ($n=158$) (Table 2). Most of the respondents were general education teachers ($n=875$), followed by vocational teachers ($n=158$), then special education teachers ($n=80$), and lastly guidance and counseling teachers ($n=73$).

Participants' Demographic Characteristics

Most of the participants were female ($n=663$, 55.9%), with 498 (56.9%) female general education teachers and 47 (58.8%) female special education teachers (Table 2). There were 53 (72.6%) female guidance and counseling teachers and only female vocational teachers ($n=65$, 41.1%) were outnumbered by their male counterparts (Table 2). The majority of participants' age ranged from 31 to 40 years ($n=595$, 50.2%), with the majority of participants holding only a Bachelor's degree ($n=663$, 55.9%). Few participants had obtained Master's degrees ($n=218$, Table 2

Survey Return Rates for General Education Teachers, Special Education Teachers, Guidance and Counseling Teachers, and Vocational Teachers by Type of School

Participants	Junior Secondary School ($n=770$)		Senior Secondary School ($n=258$)		Vocational School ($n=158$)		Total ($N=1186$)	
	n	%	n	%	n	%	N	%
General Education Teachers	662	86.0	213	82.6	0	0.0	875	73.8
Special Education Teachers	57	7.4	23	8.9	0	0.0	80	6.7
Guidance and Counseling Teachers	51	6.6	22	8.5	0	0.0	73	6.2
Vocational Teachers	0	0.0	0	0.0	158	100.0	158	13.3
Total	770	100.0	258	100.0	158	100.0	1186	100.0

Note. Percentages represent data by category and totals.

18.4%), with none of the participants holding Doctoral degrees. The most frequently reported training that participants underwent was in general education ($n=894$, 75.4%). Most of the participants had been in the teaching profession for 6-10 years ($n=371$, 31.3%). Two hundred and fifty-eight (258) participants (21.8%) reported having been in the teaching profession for 11-15 years. Two hundred fourteen ($n=214$, 18.0%) teachers worked in the teaching profession for 1-5 years. Moreover, 205 participants (17.3%) indicated having been in the teaching workforce for 16-20 years. Teachers who worked in the teaching profession for more than 20 years were the least reported ($n=138$, 11.6%).

Regarding the number of years that participants taught in their current schools, the majority of teachers ($n=440$, 37.1%) reported having taught for 3-5 years. Three hundred and sixty-four ($n=364$, 30.1%) teachers indicated that they had been teaching at their current schools for 6-10 years. Another 204 (17.2%) participants taught at their current schools for 1-2 years. Additionally, 115 participants taught at their current schools for 11-15 years (9.7%), whereas 50 participants taught for 16-20 years at their current schools (4.2%). Teachers who taught at their current schools for more than 20 years were the least reported ($n=13$, 1.1%). The majority of participants were from the South East region ($n=712$, 60%) and most of the participants ($n=727$, 61.3%) reported that their schools were located in a semi-urban area.

The cross tabulation of demographic characteristics by school type shows that there were 456 female general junior secondary teachers (59.2%), and there were 142 (55.0%) female senior secondary teachers (see Table 4). There were fewer female vocational teachers ($n=65$, 41.1%) than their male counterparts. Table 5 shows the cross tabulation of demographic characteristics by school region. The results show that the number of male and female teachers in the Kgatleng region was equal (50.0%), and there were 426 (59.8%) female teachers in the South East region.

Table 3

Percentages of Respondents' Demographic Characteristics by Teacher Position

<i>Variable</i>	General Education Teacher (<i>n</i> =875)		Special Education Teacher (<i>n</i> =80)		Guidance and Counseling Teacher (<i>n</i> =73)		Vocational Teacher (<i>n</i> =158)		Total (<i>N</i> =1186)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
<i>Gender</i>										
Male	377	43.1	33	41.3	20	27.4	93	58.9	523	44.1
Female	498	56.9	47	58.8	53	72.6	65	41.1	663	55.9
Total	875	100.0	80	100.0	73	100.0	158	100.0	1186	100.0
<i>Age</i>										
20-30	137	15.7	16	20.0	1	1.4	20	12.7	174	14.7
31-40	456	52.1	45	56.3	30	41.1	64	40.5	595	50.2
41-50	220	25.1	17	21.3	42	57.5	63	39.9	342	28.8
51-60	47	5.4	2	2.5	0	0.0	11	7.0	60	5.1
61+	15	1.7	0	0.0	0	0.0	0	0.0	15	1.3
Total	875	100.0	80	100.0	73	100.0	158	100.0	1186	100.0
<i>Education Level</i>										
Certificate	0	0.0	0	0.0	0	0.0	3	1.9	3	0.3
Diploma	166	19.0	12	15.0	15	20.5	69	43.7	262	22.1
Bachelor's	504	57.6	49	61.3	49	67.1	61	38.6	663	55.9
Master's	173	19.8	13	14.3	9	12.3	23	14.6	218	18.4
Doctoral	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other	32	3.7	6	7.5	0	0.0	2	1.3	40	3.4
Total	875	100.0	80	100.0	73	100.0	158	100.0	1186	100.0
<i>Training</i>										
General Ed.	836	95.5	0	0.0	0	0.0	58	36.7	894	75.4
Special Ed.	11	1.3	76	95.0	0	0.0	1	0.6	88	7.4
Counseling	5	0.6	0	0.0	69	94.5	0	0.0	74	6.2
Other	23	2.6	4	5.0	4	5.5	99	62.7	130	11.0
Total	875	100.0	80	100.0	73	100.0	158	100.0	1186	100.0
<i>Teaching Years</i>										
1-5	144	16.5	22	27.5	5	6.8	43	27.2	214	18.0
6-10	298	34.1	16	20.0	14	19.2	43	27.2	371	31.3
11-15	198	22.6	19	23.8	20	27.4	21	13.3	258	21.8
16-20	164	18.7	10	12.5	6	8.2	25	15.8	205	17.3
20+	71	8.1	13	16.3	28	38.4	26	16.5	138	11.6
Total	875	100.0	80	100.0	73	100.0	158	100.0	1186	100.0
<i>Years in Current School</i>										
1-2	157	17.9	16	20.0	7	9.6	24	15.2	204	17.2
3-5	342	39.1	24	30.0	29	39.7	45	28.5	440	37.1
6-10	257	29.4	21	26.3	36	49.3	50	31.6	364	30.7
11-15	88	10.1	18	22.5	1	1.4	8	5.1	115	9.7
16-20	23	2.6	1	1.3	0	0.0	26	16.5	50	4.2
20+	8	0.9	0	0.0	0	0.0	5	3.2	13	1.1
Total	875	100.0	80	100.0	73	100.0	158	100.0	1186	100.0
<i>School Region</i>										
Kgatleng	346	39.5	32	40.0	29	39.7	67	42.4	474	40.0
South East	529	60.5	48	60.0	44	60.3	91	57.6	712	60.0
Total	875	100.0	80	100.0	73	100.0	158	100.0	1186	100.0

Table 3 *continued**Percentages of Respondents' Demographic Characteristics by Teacher Position*

<i>Variable</i>	General Education Teacher (<i>n</i> =875)		Special Education Teacher (<i>n</i> =80)		Guidance and Counseling Teacher (<i>n</i> =73)		Vocational Teacher (<i>n</i> =158)		Total (<i>N</i> =1186)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
<i>Geographic Setting</i>										
Rural	125	14.3	6	7.5	3	4.1	12	7.6	146	12.3
Semi Urban	547	62.5	55	68.8	36	49.3	89	56.3	727	61.3
Urban	203	23.2	19	23.8	34	46.6	57	36.1	313	26.4
Total	1186	100.0	80	100.0	73	100.0	158	100.0	1186	100.0

Note. Percentages represent data reported by category and totals.

For more detailed information by teachers' position, school type, and education region see Tables 3, 4, and 5.

Participants' demographic responses were also cross-tabulated by school type and school region. Table 4 displays participants' demographic characteristics as cross-tabulated by the type of school in which the participants worked and Table 5 provides the cross-tabulation by school region.

Organization and Presentation of Results

Four research questions specifically examined the experiences and views of secondary school teachers and vocational teachers in assisting students with disabilities transition from secondary and vocational school to higher education and/or employment in Botswana. The data was organized and analyzed to answer each research question by presenting the results in tables, as well as using narratives. For each question, the first analysis corresponds to participants indicating that they had no knowledge of a survey item (Do Not Know). These items were separated and analyzed as descriptive data, while also considering the implications of the study concerning participants' knowledge level on transition from secondary and vocational school to

Table 4

Percentages of Respondents' Demographic Characteristics by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Vocational School (n=158)		Total (N=1186)	
<i>Variable</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
<i>Gender</i>								
Male	314	40.8	116	45.0	93	58.9	523	44.1
Female	456	59.2	142	55.0	65	41.1	663	55.9
Total	770	100.0	258	100.0	158	100.0	1186	100.0
<i>Age</i>								
20-30	119	15.5	35	13.6	20	12.7	174	14.7
31-40	442	57.4	89	34.5	64	40.5	595	50.2
41-50	185	24.0	94	36.4	63	39.9	342	28.8
51-60	21	2.7	28	10.9	11	7.0	60	5.1
61+	3	0.4	12	4.7	0	0.0	15	1.3
Total	770	100.0	258	100.0	158	100.0	1186	100.0
<i>Education Level</i>								
Certificate	0	0.0	0	0.0	3	1.9	3	0.3
Diploma	193	25.1	0	0.0	69	43.7	262	22.1
Bachelor's	425	55.5	175	67.8	61	38.6	663	55.9
Master's	117	15.2	78	30.2	23	14.6	218	18.4
Doctoral	0	0.0	0	0.0	0	0.0	0	0.0
Other	33	4.3	5	1.9	2	1.3	40	3.4
Total	770	100.0	258	100.0	158	100.0	1186	100.0
<i>Training Received</i>								
General Ed.	626	81.3	210	81.4	58	36.7	894	75.4
Special Ed.	61	7.9	26	10.1	1	0.6	88	7.4
Counseling	56	7.3	18	7.0	0	0.0	74	6.2
Other	27	3.5	4	1.6	99	62.7	130	11.0
Total	770	100.0	258	100.0	158	100.0	1186	100.0
<i>Teaching Years</i>								
1-5	135	17.5	30	14.0	43	27.2	214	18.0
6-10	275	35.7	53	20.5	43	27.2	371	31.3
11-15	170	22.1	67	26.0	21	13.3	258	21.8
16-20	129	16.8	51	19.8	25	15.8	205	17.3
20+	61	7.9	51	19.8	26	16.5	138	11.6
Total	770	100.0	258	100.0	158	100.0	1186	100.0

Table 4 *continued**Percentages of Respondents' Demographic Characteristics by School Type*

	Junio Secondary School (<i>n</i> =770)		SeniorSecondary School (<i>n</i> =258)		Vocational School (<i>n</i> =158)		Total (<i>N</i> =1186)	
<i>Variable</i>	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
<i>Years in Current School</i>								
1-2	139	18.1	41	15.9	24	15.2	204	17.2
3-5	291	37.8	104	40.3	45	28.5	440	37.1
6-10	255	33.1	59	22.0	50	31.6	364	30.7
11-15	79	10.3	28	10.9	8	5.1	115	9.7
16-20	6	0.8	18	7.0	26	16.5	50	4.2
20+	0	0.0	8	3.1	5	3.2	13	1.1
Total	770	100.0	258	100.0	158	100.0	1186	100.0
<i>School Region</i>								
Kgatleng	293	38.1	114	44.2	67	42.4	474	40.0
South East	477	61.9	144	55.8	91	57.6	712	60.0
Total	770	100.0	258	100.0	158	100.0	1186	100.0
<i>Geographic Setting</i>								
Rural	91	11.8	43	16.7	12	7.6	146	12.3
Semi Urban	478	62.1	160	62.0	89	56.3	727	61.3
Urban	201	26.1	55	21.3	57	36.1	313	26.4
Total	770	100.0	258	100.0	158	100.0	1186	100.0

Note. Percentages represent data by category and totals.

higher education and/or employment. Following this analysis are the non-parametric tests, Mann Whitney *U* and the Kruskal-Wallis test of *k* groups, used to determine differences between groups as described in the analytic plan. The Mann Whitney *U* post hoc was used as a follow-up for a significant Kruskal Wallis test result.

Pertinent results are presented corresponding to each research question in sequence. First, totals are given, beginning with teachers' positions (general education teacher, special education

Table 5

Percentages of Respondents' Demographic Characteristics by School Region

<i>Variable</i>	Kgatleng (<i>n</i> =474)		South East (<i>n</i> =712)		Total (<i>N</i> =1186)	
	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
<i>Gender</i>						
Male	237	50.0	286	40.2	523	44.1
Female	237	50.0	426	59.8	663	55.9
Total	474	100.0	712	100.0	1186	100.0
<i>Age</i>						
20-30	88	18.6	86	12.1	174	14.7
31-40	225	47.5	370	52.0	595	50.2
41-50	104	21.9	238	33.4	342	28.8
51-60	44	9.3	16	2.2	60	5.1
61+	13	2.7	2	0.3	15	1.3
Total	474	100.0	712	100.0	1186	100.0
<i>Education Level</i>						
Certificate	0	0.0	3	0.4	3	0.3
Diploma	102	21.5	160	22.5	262	22.1
Bachelor's	251	53.6	412	57.9	663	55.9
Master's	113	23.8	105	14.7	218	18.4
Doctoral	0	0.0	0	0.0	0	0.0
Other	8	1.7	32	4.5	40	3.4
Total	474	100.0	712	100.0	1186	100.0
<i>Training Received</i>						
General Ed.	361	76.2	533	74.9	894	75.4
Special Ed.	36	7.6	52	7.3	88	7.4
Counseling	27	5.7	47	6.6	74	6.2
Other	50	10.5	80	11.2	130	11.0
Total	474	100.0	712	100.0	1186	100.0
<i>Teaching Years</i>						
1-5	96	20.3	118	16.6	214	18.0
6-10	160	33.8	211	29.6	371	31.3
11-15	102	21.5	156	21.9	258	21.8
16-20	63	13.3	142	19.9	205	17.3
20+	53	11.2	85	11.9	138	11.6
Total	474	100.0	712	100.0	1186	100.0
<i>Years in Current School</i>						
1-2	88	18.6	116	16.3	204	17.2
3-5	173	36.5	267	37.5	440	37.1
6-10	123	25.9	241	33.8	364	30.7
11-15	59	12.4	56	7.9	115	9.7

Table 5 *continued**Percentages of Respondents' Demographic Characteristics by School Region*

	Kgatleng (<i>n</i> =474)		South East (<i>n</i> =712)		Total (<i>N</i> =1186)	
<i>Variable</i>	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
16-20	23	4.9	27	3.8	50	4.2
20+	8	1.7	5	0.7	13	1.1
Total	474	100.0	712	100.0	1186	100.0
<i>Geographic Setting</i>						
Rural	71	15.0	75	10.5	146	12.3
Semi Urban	381	80.4	346	48.6	727	61.3
Urban	22	4.6	291	40.9	313	26.4
Total	474	100.0	712	100.0	1186	100.0

Note. Percentages represent data by category and totals.

teacher, guidance and counseling teacher, vocational teacher), then school setting (junior secondary school, senior secondary school, vocational school), and school region (Kgatleng, South East). Lastly, a summary of the results from teachers' experiences and views is provided regarding assisting students with disabilities successfully transition from secondary and vocational school to higher education and/or employment. This data analysis focuses on teachers' beliefs about specific practices for students with visual impairments, academic and functional curriculum taught to students, other transition services aimed at improving postsecondary outcomes, and views on barriers to successful transition programming.

Likert scores were used for data analysis. Likert-scale items were assigned numerical codes as follows: Strongly Disagree = [1] (0-25%); Disagree = [2] (26-50%); Agree = [3] (51-75%); Strongly Agree = [4] (76-100%); and Do Not Know = [5]. The analyses began with "Do Not Know" responses to develop a general understanding of which specific survey items could have implications on future research and/or call for professional development activities. If 25%

or more of the participants selected “Do Not Know” to a survey item, this was considered evidence of the need for participants’ training concerning transition knowledge, planning, and programming.

Section 3 addressed beliefs, knowledge, and views of participants concerning transition planning practices and principles that resulted in successful post-school outcomes for students with disabilities. The participants rated their degree of agreement with the items provided by choosing an appropriate response. For junior secondary teachers, senior secondary teachers, and vocational teachers, the section comprised 31 items, 30 items, and 34 items respectively. Items on subsections A and B were used to answer research question 1, while items on subsection C addressed research question 2. Moreover, section 4 addressed research question 3 by focusing on teachers’ beliefs about specific transition practices for students with visual impairments, the school curriculum, and how well the curriculum helped students with disabilities successfully transition. In this section, the academic and functional coursework offered by the participating schools were also explored. There were 31 items, 25 items, and 26 items for junior secondary teachers, senior secondary teachers, and vocational teachers respectively. Finally, section 5 contained nine items addressing research question 4. These items focused on challenges and barriers that teachers encountered or anticipated while working with students with disabilities in the transition planning process. Teachers shared their views about what factors negatively impacted transition planning, service provision, and therefore post-school outcomes for students with disabilities.

All survey items in sections 3 to 5 utilized the same five point Likert-type rating scale previously described. Since there were three different school settings, the wording of several survey questions differed, based on the setting. However, these items were presented in parallel

form (Form 1 to Form 3/Form 4 to Form 5/Year 1 to Year 3). Although the question stems were similar regarding intent, the items targeted specific settings (junior secondary school, senior secondary school, vocational school). Data regarding parallel form items were reported separately. Questions with the same wording are reported in the same tables by teacher position, school type, and school region respectively.

Research Question 1

The first research question explored whether secondary teachers in Botswana were knowledgeable about transition planning and programming that helps to improve the post-school outcomes of students with disabilities. The question further examined whether there were any differences between special education, general, and guidance and counseling teachers in knowledge concerning effective practices for the transition of secondary school students with disabilities in Botswana.

Participants' "Do Not Know" Responses on Transition Views and Beliefs

Table 6 shows frequencies and percentages of participants who chose "Do Not Know" regarding transition views and beliefs, by their position. Sixty-eight (68) general education teachers (7.8%) answered "Do Not Know" when asked if a transition should include a written plan for each individual student with a disability. Another 61 (7.0%) answered "Do Not Know" when asked if transitions should encompass a variety of activities to help transition individuals to employment. When asked if transitions should include specific goals and objectives corresponding to specific post-school outcomes, 68 general education teachers (7.8%) answered "Do Not Know." Eighty-one (81) general education teachers (9.3%) selected "Do Not Know" when asked if transitions should encompass the strengths, abilities, priorities, interests, and needs of each student. Another 63 (7.2%) selected "Do Not Know" concerning whether transitions

should include constant assessment resulting in an individual securing employment after school. Eighty (80) general education teachers (9.1%) answered “Do Not Know” when asked if transitions should involve teaching students both academic and functional skills. Regarding whether transitions should include postsecondary education and/or employment as the main outcomes following secondary school completion, 74 (8.5%) answered “Do Not Know.” Again, 81 (9.3%) responded “Do Not Know” concerning whether transitions should include the involvement of students’ parents/families in transition planning and service delivery. There were 128 (14.6%) general education teachers who answered “Do Not Know” when asked if transition should include collaboration with school staff and agencies outside the school.

One (1) special education teacher (1.3%) answered “Do Not Know” when asked if transitions should include written plans for each individual student with a disability. Another single participant (1.3%) answered “Do Not Know” when asked if transitions should encompass a variety of activities to help transition to employment. When asked if transitions should include specific goals and objectives corresponding to specific post-school outcomes, two special education teachers (2.5%) answered “Do Not Know.” Three (3) special education teachers (3.8%) selected “Do Not Know” when asked if transitions should encompass the strengths, abilities, priorities, interests, and needs of each student. Another 10 (12.5%) selected “Do Not Know” concerning whether transitions should include constant assessment of each student resulting in securing employment after school. Two (2) special education teachers (2.5%) answered “Do Not Know” when asked if transitions should involve teaching students both academic and functional skills. Regarding whether transitions should include postsecondary education and/or employment as the main outcomes following secondary school completion, one participant (1.3%) answered “Do Not Know.” Again, 15 (18.8%) responded “Do Not Know”

concerning whether transitions should include the involvement of students' parents/families in transition planning and service delivery. There were six (7.5%) special education teachers who answered "Do Not Know" when asked if transitions should include collaboration with school staff and agencies outside the school.

Six (6) guidance and counseling teachers (8.2%) answered "Do Not Know" when asked if transitions should include a written plan for each individual student with a disability. Another six (8.2%) answered "Do Not Know" when asked if transitions should encompass a variety of activities to help individuals transition to employment. When asked if transitions should include specific goals and objectives corresponding to specific post-school outcomes, four guidance and counseling teachers (5.5%) answered "Do Not Know." Five (5) guidance and counseling teachers (6.8%) selected "Do Not Know" when asked if a transition should encompass the strengths, abilities, priorities, interests, and needs of each student. Another five (6.8%) selected "Do Not Know" concerning whether transitions should include constant assessment resulting in securing employment after school. Three (3) guidance and counseling teachers (4.1%) answered "Do Not Know" when asked if transitions should involve teaching students both academic and functional skills. Regarding whether transitions should include postsecondary education and/or employment as the main outcomes following secondary school completion, nine (12.3%) answered "Do Not Know." Again, one participant (1.4%) responded "Do Not Know" concerning whether transitions should include the involvement of students' parents/families in transition planning and service delivery. There were no (0.0%) guidance and counseling teachers who answered "Do Not Know" when asked if transition should include collaboration with school staff and agencies outside the school.

Table 6

Percentages of “Do Not Know” Responses of Transition Planning Views by Teacher Position

	General Education Teacher (n=875)		Special Education Teacher (n=80)		Guidance and Counseling Teacher (n=73)		Total (N=1028)	
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
A written plan for each individual student with a disability	68	7.8	1	1.3	6	8.2	75	7.3
A variety of activities to help transition to employment	61	7.0	1	1.3	6	8.2	68	6.6
Specific goals and objectives corresponding to specific post-school outcomes	68	7.8	2	2.5	4	5.5	74	7.2
The strengths, abilities, priorities, interests, and needs of each student	81	9.3	3	3.8	5	6.8	89	8.7
Constant assessment resulting in securing employment after school	63	7.2	10	12.5	5	6.8	78	7.6
Teaching students both academic and functional skills	80	9.1	2	2.5	3	4.1	85	8.3
Postsecondary education and/or employment as the main outcomes following secondary school completion	74	8.5	1	1.3	9	12.3	84	8.2

Table 6 *continued**Percentages of “Do Not Know” Responses of Transition Planning Views by Teacher Position*

	General Education Teacher (<i>n</i> =875)		Special Education Teacher (<i>n</i> =80)		Guidance and Counseling Teacher (<i>n</i> =73)		Total (<i>N</i> =1028)	
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Involvement of students’ parents/families in transition planning and service delivery	81	9.3	15	8.8	1	1.4	97	9.4
Collaboration with school staff and agencies outside the school	128	14.6	6	7.5	0	0.0	134	13.0

Note. Percentages represent data reported by category and totals.

Teachers held diverse views and beliefs regarding student transitions and the components of transitions that assist students with disabilities to move successfully to postsecondary settings. The results show that there was no group of participants sorted by position whose percentage of “Do Not Know” responses equaled or surpassed the 25% threshold that would warrant professional development or training. Participants’ “Do Not Know” percentages by position were below 19%, implying that participants understood transition principles and practices.

Percentages and frequencies of participants’ “Do Not Know” responses regarding transition views and beliefs by type of school were presented in Table 7. Fifty-eight (58) junior secondary teachers (7.5%) answered “Do Not Know” when asked if transitions should include written plans for each individual student with a disability. Another 50 (6.5%) answered “Do Not

Know” when asked if transitions should encompass a variety of activities to help transition to employment. When asked if transitions should include specific goals and objectives corresponding to specific post-school outcomes, 55 junior secondary teachers (7.1%) answered “Do Not Know.” Fifty-eight (58) junior secondary teachers (7.5%) selected “Do Not Know” when asked if transition should encompass the strengths, abilities, priorities, interests, and needs of each student. Another 53 (6.9%) selected “Do Not Know” concerning whether transitions should include constant assessment for each individual, resulting in securing employment after school. Sixty-seven (67) junior secondary teachers (8.7%) answered “Do Not Know” when asked if transitions should involve teaching students both academic and functional skills. Regarding whether transitions should include postsecondary education and/or employment as the main outcomes following secondary school completion, 51 (6.6%) answered “Do Not Know.” Again, 58 (7.5%) responded “Do Not Know” concerning whether transitions should include the involvement of students’ parents/families in transition planning and service delivery. There were 93 (12.1%) junior secondary teachers who answered “Do Not Know” when asked if transitions should include collaboration with school staff and agencies outside the school.

Seventeen (17) senior secondary teachers (6.6%) answered “Do Not Know” when asked if transitions should include a written plan for each individual student with a disability. Another 18 (7.0%) answered “Do Not Know” when asked if transitions should encompass a variety of activities to help individual students transition to employment. When asked if transitions should include specific goals and objectives corresponding to specific post-school outcomes, 19 senior secondary teachers (7.4%) answered “Do Not Know.” Thirty-one (31) senior secondary teachers (12.0%) selected “Do Not Know” when asked if transitions should encompass the strengths, abilities, priorities, interests, and needs of each student. Another 25 (9.7%) selected “Do Not

Table 7

Percentages of “Do Not Know” Responses of Transition Planning Views by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Total (N=1028)	
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
A written plan for each individual student with a disability	58	7.5	17	6.6	75	7.3
A variety of activities to help transition to employment	50	6.5	18	7.0	68	6.6
Specific goals and objectives corresponding to specific post-school outcomes	55	7.1	19	7.4	74	7.2
The strengths, abilities, priorities, interests, and needs of each student	58	7.5	31	12.0	89	8.7
Constant assessment resulting in securing employment after school	53	6.9	25	9.7	78	7.6
Teaching students both academic and functional skills	67	8.7	18	7.0	85	8.3
Postsecondary education and/or employment as the main outcomes following secondary school completion	51	6.6	33	12.8	84	8.2
Involvement of students’ parents/families in transition planning and service delivery	58	7.5	39	15.1	97	9.4
Collaboration with school staff and agencies outside the school	93	12.1	41	15.9	134	13.0

Note. Percentages represent data reported by category and totals.

Know” concerning whether transitions should include constant assessment for individual students, resulting in securing employment after school. Eighteen (18) senior secondary teachers (7.0%) answered “Do Not Know” when asked if transitions should involve teaching students both academic and functional skills. Regarding whether transitions should include postsecondary education and/or employment as the main outcomes following secondary school completion, 33 (12.8%) answered “Do Not Know.” Again, 39 (15.1%) responded “Do Not Know” concerning whether transitions should include the involvement of students’ parents/families in transition planning and service delivery. There were 41 (15.9%) senior secondary teachers who answered “Do Not Know” when asked if transitions should include collaboration with school staff and agencies outside the school.

The views and beliefs of junior secondary teachers and senior secondary teachers were diverse regarding transitions and components of transitions that successfully assist students with disabilities to move to postsecondary settings. There was no group of participants sorted by type of school whose percentage of “Do Not Know” responses equaled or surpassed the 25% cut-off point that would call for professional development or training. A 16% rate of “Do Not Know” responses from junior and secondary teachers supports the conclusion that this group understood transition principles and practices.

Percentages and frequencies of participants’ “Do Not Know” responses by school region regarding transition views and beliefs were also noted (Table 8). Twenty (20) Kgatleng region teachers (4.9%) answered “Do Not Know” when asked if transitions should include a written plan for each individual student with a disability. Another 22 (5.4%) answered “Do Not Know” when asked if transitions should encompass a variety of activities to help individuals transition to employment. When asked if transitions should include specific goals and objectives

corresponding to specific post-school outcomes, 13 Kgatleng region teachers (3.2%) answered “Do Not Know.” Nineteen (19) Kgatleng region teachers (4.7%) selected “Do Not Know” when asked if transitions should encompass the strengths, abilities, priorities, interests, and needs of each student. Another 16 (3.9%) selected “Do Not Know” concerning whether transitions should include constant assessment of each individual, resulting in securing employment after school. Nineteen (19) Kgatleng region teachers (4.7%) answered “Do Not Know” when asked if transitions should involve teaching students both academic and functional skills. Regarding whether transitions should include postsecondary education and/or employment as the main outcomes following secondary school completion, 21 (5.2%) answered “Do Not Know.” Again, 26 (6.4%) responded “Do Not Know” concerning whether transitions should include the involvement of students’ parents/families in transition planning and service delivery. There were 21 (5.2%) Kgatleng region teachers who answered “Do Not Know” when asked if transitions should include collaboration with school staff and agencies outside the school.

Additionally, 55 South East region teachers (8.9%) answered “Do Not Know” when asked if transitions should include written plans for each individual student with a disability. Another 46 (7.4%) answered “Do Not Know” when asked if transitions should encompass a variety of activities to help individuals transition to employment. When asked if transitions should include specific goals and objectives corresponding to specific post-school outcomes, 61 South East region teachers (9.8%) answered “Do Not Know.” Seventy (70) South East region teachers (11.3%) selected “Do Not Know” when asked if transitions should encompass the strengths, abilities, priorities, interests, and needs of each student. Another 62 (10.0%) selected “Do Not Know” concerning whether transitions should include constant assessments resulting in securing employment after school for each individual. Sixty-six (66) South East region teachers

Table 8

Percentages of “Do Not Know” Responses of Transition Planning Views by School Region

	Kgatlang Region (n=407)		South East Region (n=621)		Total (N=1028)	
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
A written plan for each individual student with a disability	20	4.9	55	8.9	75	7.3
A variety of activities to help transition to employment	22	5.4	46	7.4	68	6.6
Specific goals and objectives corresponding to specific post-school outcomes	13	3.2	61	9.8	74	7.2
The strengths, abilities, priorities, interests, and needs of each student	19	4.7	70	11.3	89	8.7
Constant assessment resulting in securing employment after school	16	3.9	62	10.0	78	7.6
Teaching students both academic and functional skills	19	4.7	66	10.6	85	8.3
Postsecondary education and/or employment as the main outcomes following secondary school completion	21	5.2	63	10.1	84	8.2
Involvement of students’ parents/families in transition planning and service delivery	26	6.4	71	11.4	97	9.4
Collaboration with school staff and agencies outside the school	21	5.2	113	18.2	134	13.0

Note. Percentages represent data reported by category and totals.

(10.6%) answered “Do Not Know” when asked if transitions should involve teaching students both academic and functional skills. Regarding whether transitions should include postsecondary education and/or employment as the main outcomes following secondary school completion, 63 (10.1%) answered “Do Not Know.” Again, 71 (11.4%) responded “Do Not Know” concerning whether transitions should include the involvement of students’ parents/families in transition planning and service delivery. There were 113 (18.29%) South East region teachers who answered “Do Not Know” when asked if transitions should include collaboration with school staff and agencies outside the school.

The views and beliefs of Kgatleng and South East region teachers were diverse regarding transitions as well as components of transitions that assist students with disabilities to move successfully to postsecondary settings. There was no group of participants sorted by school region whose percentage of “Do Not Know” responses equaled or surpassed the 25% cut-off point that would call for professional development or training. “Do Not Know” response rates of 3.2%-18.2% indicate that teachers from the Kgatleng and South East region understood transition principles and practices.

Participants’ Differences on Transition Views and Beliefs

In general, participants in this study agreed that transitions for students with disabilities to postsecondary settings should encompass the following components: (a) a written plan for each individual student with a disability ($M=3.69$); (b) a variety of activities to help transition to employment ($M=3.69$); (c) specific goals and objectives corresponding to specific post-school outcomes ($M=3.64$); (d) the strengths, abilities, priorities, interests, and needs of each student ($M=3.71$); (e) constant assessment resulting in securing employment after school ($M=3.66$); (f) teaching students both academic and functional skills ($M=3.70$); (g) postsecondary education

and/or employment as the main outcomes following secondary school completion ($M=3.58$); (h) involvement of students' parents/families in transition planning and service delivery ($M=3.67$); and (i) collaboration with school staff and agencies outside the school ($M=3.72$).

Concerning differences in participants' transition beliefs, Kruskal-Wallis tests, divided by teacher position, are presented in Table 9. The results show that both general education teachers, special education teachers, and guidance and counseling teachers agreed ($M=3.43$ - 3.73) that transition for students with disabilities to postsecondary settings should include a written plan for each individual student with a disability. There was a significant difference reported by teacher position ($\chi^2= 47.09$, $df= 2$, $p>.05$), although effect size (0.22) was small. A Mann Whitney U post hoc test to follow up by comparing position groups showed no significant difference between special education and guidance and counseling teachers. However, both special education teachers and guidance and counseling teachers were significantly different from general education teachers. Special education teachers ($M=3.73$) had a higher rating than general education teachers ($M=3.43$) showing that they agreed more than general education teachers that transition planning should include a written plan for each individual with a disability ($z=-5.33$, $p<.01$). Guidance and counseling teachers ($M=3.52$) also had a higher rating than general education teachers ($M=3.43$) on this item ($z=-5.10$, $p<.01$). Participants in all three position groups agreed ($M= 3.52$ - 3.78) that transitions should include a variety of activities to help transition individuals to employment. There was a significant difference reported by position group ($\chi^2= 9.22$, $df= 2$, $p>.05$), but the effect size (0.10) was small. A Mann Whitney U post hoc test revealed that there were significant differences between general education teachers and special education teachers, as well as between special education and guidance and counseling teachers. Special education teachers showed more agreement ($M=3.70$) than general education

teachers ($M=3.52$) that transition planning should include a variety of activities to help students transition to employment ($z=-2.64, p<.01$). However, guidance and counseling teachers showed more agreement ($M=3.78$) than special education teachers ($M=3.70$) that a variety of activities are needed in the transition planning process ($z=-2.70, p<.01$). Regarding the principle that transitions should include specific goals and objectives corresponding to specific post-school outcomes, all participants agreed with this item ($M=3.24-3.70$). There was a significant difference between participants by position group ($\chi^2= 42.40, df= 2, p>.05$) and the effect size (0.21) was moderate. Likewise, results of a Mann Whitney U post hoc test showed that there were significant differences between general education and special education teachers, as well as between general education and guidance and counseling teachers. There was no significant difference between special education and guidance and counseling teachers. Special education teachers ($M=3.70$) had more agreement than general education teachers ($M=3.24$) that transitions should include specific goals and objectives corresponding to specific post-school outcomes ($z=-5.17, p<.01$). Guidance and counseling teachers ($M=3.48$) also showed more agreement than general education teachers ($M=3.24$) on this item ($z=-4.61, p<.01$). All participants by position agreed that transition planning should include the strengths, abilities, priorities, interests, and needs of each student ($M=3.69-3.90$). A significant difference between the three position groups was noted on this item ($\chi^2= 6.54, df= 2, p>.05$). A Mann Whitney U post hoc test result showed that there was a significant difference only between general education teachers and guidance and counseling teachers. Guidance and counseling teachers ($M=3.90$) agreed more compared to general education teachers ($M=3.69$) that transition planning should include the strengths, abilities, priorities, interests, and needs of each student ($z=-2.51, p<.05$).

Table 9

Kruskal-Wallis Analysis for Respondents' Views of Transition Planning by Teacher Position

	General Education Teacher (n=875)			Special Education Teacher (n=80)			Guidance and Counseling Teacher (n=73)					
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
A written plan for each individual student with a disability	807	3.43	0.66	79	3.73	0.75	67	3.52	0.50	2	47.09	0.22
A variety of activities to help transition to employment	814	3.52	0.62	79	3.70	0.77	67	3.78	0.60	2	9.22	0.10
Specific goals and objectives corresponding to specific post- school outcomes	807	3.24	0.60	78	3.70	0.97	69	3.48	0.50	2	42.40	0.21
The strengths, abilities, priorities, interests, and needs of each student	794	3.69	0.66	77	3.79	0.41	68	3.90	0.31	2	6.53	0.08
Constant assessment resulting in securing	812	3.67	0.66	70	3.59	0.65	68	3.71	0.46	2	2.14	0.05

Table 9 *continued**Kruskal-Wallis Analysis for Respondents' Views of Transition Planning by Teacher Position*

	General Education Teacher (<i>n</i> =875)			Special Education Teacher (<i>n</i> =80)			Guidance and Counseling Teacher (<i>n</i> =73)					
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
employment after school												
Teaching students both academic and functional skills	795	3.70	0.63	78	3.72	0.56	70	3.67	0.47	2	2.00	0.05
Postsecondary education and/or employment as the main outcomes following secondary school completion	801	3.58	0.67	79	3.52	0.64	64	3.70	0.61	2	5.14	0.07
Involvement of students' parents/families in transition planning and service delivery	794	3.67	0.67	65	3.57	0.81	72	3.81	0.43	2	2.82	0.06
Collaboration with school staff and agencies outside the school	747	3.72	0.67	74	3.61	0.81	73	3.86	0.35	2	3.81	0.07

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Also, participants agreed that transition planning should include constant assessment of individuals ($M=3.59-3.71$). There was no significant difference between position groups on this item ($\chi^2= 2.14$, $df= 2$, $p>.05$). Participants agreed that teaching students both academic and functional skills was a key component ($M=3.67-3.72$). No significant differences were noted between groups ($\chi^2= 2.00$, $df= 2$, $p>.05$). Concerning postsecondary education and/or employment as the main outcomes following secondary school completion, participants agreed that this component was key ($M=3.52-3.70$). Similarly, no significant group differences were noted on the item ($\chi^2= 5.14$, $df= 2$, $p>.05$). The involvement of students' parents/families in transition planning and service delivery was also noted as an important component ($M=3.57-3.81$), and there were no significant differences between position groups ($\chi^2= 2.82$, $df= 2$, $p>.05$). Regarding collaboration with school staff and agencies outside the school participants agreed that this component should be included in the transition planning process ($M=3.61-3.86$). Again, no significant differences were noted between position groups ($\chi^2= 3.81$, $df= 2$, $p>.05$).

Table 10 provides the results of Mann Whitney U test conducted by school type for question 16 through 24, addressing differences in participants' transition beliefs (research question 1). The results demonstrate that both junior secondary teachers and senior secondary teachers agreed ($M=3.68-3.69$) that transition for students with disabilities to postsecondary settings should include a written plan for each individual student with a disability, with no significant difference reported by school type ($z=-0.55$, $df= 2$, $p>.05$). Participants in the two school types agreed ($M= 3.49-3.76$) that transitions should include a variety of activities to help individual students transition to employment. There was a significant difference reported by school type ($z=-7.96$, $df= 2$, $p>.05$, but a small effect size (0.44). Junior secondary teachers showed more agreement ($M=3.76$) than senior secondary teachers ($M=3.49$) that transition

planning should include a variety of activities to help students transition to employment. All participants agreed that transitions should include specific goals and objectives corresponding to specific post-school outcomes, ($M=3.64-3.67$), with no significant difference between participants by school type ($z=-1.11$, $df=2$, $p>.05$). All participants by school type agreed that transition planning should include the strengths, abilities, priorities, interests, and needs of each student ($M=3.71$). Results did not support any significant difference between the two groups concerning including the strengths, abilities, priorities, interests, and needs of students in the transition planning process ($z=-0.77$, $df=2$, $p>.05$). Moreover, participants agreed that transition planning should include constant assessment of each individual, resulting in securing employment after school ($M=3.66-3.68$). There was no significant difference between junior and senior secondary teachers on this item ($z=-0.32$, $df=2$, $p>.05$).

Participants also agreed that teaching students both academic and functional skills was a key component of the transition planning process ($M=3.68-3.70$), with significant differences between groups ($z=-2.35$, $df=2$, $p>.05$). Junior secondary teachers agreed more ($M=3.70$) than senior secondary teachers ($M=3.68$) that teaching students academic and functional skills was a key component of the transition planning process. Most participants agreed that postsecondary education and/or employment was the main outcomes following secondary school completion ($M=3.57-3.63$), with no significant group differences ($z=-0.80$, $df=2$, $p>.05$). Participants also considered the involvement of students' parents/families in transition planning and service delivery as an important component ($M=3.54-3.71$), with a significant difference between junior and senior secondary teachers. ($z=-3.58$, $df=2$, $p>.05$). Junior secondary teachers agreed more ($M=3.71$) than senior secondary teachers ($M=3.54$) that students' parents/families should be included in transition planning and service delivery, although the effects size (0.26) was small.

Table 10

Mann Whitney U Analysis for Respondents' Views of Transition Planning by School Type

	Junior Secondary School (n=770)			Senior Secondary School (n=258)					
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
A written plan for each individual student with a disability	712	3.69	0.67	241	3.68	0.63	2	-0.55	0.01
A variety of activities to help transition to employment	720	3.76	0.61	240	3.49	0.68	2	-7.96	0.44
Specific goals and objectives corresponding to specific post-school outcomes	715	3.64	0.64	239	3.67	0.68	2	-1.11	0.04
The strengths, abilities, priorities, interests, and needs of each student	712	3.71	0.65	227	3.71	0.55	2	-0.77	0.01
Constant assessment resulting in securing employment after school	717	3.66	0.66	233	3.68	0.60	2	-0.32	0.03
Teaching students both academic and functional skills	703	3.70	0.65	240	3.68	0.49	2	-2.35	0.03
Postsecondary education and/or employment as the main outcomes following secondary school completion	719	3.57	0.69	225	3.63	0.59	2	-0.80	0.09
Involvement of students' parents/families in transition planning and service delivery	712	3.71	0.64	219	3.54	0.76	2	-0.80	0.26

Table 10 *continued**Mann Whitney U Analysis for Respondents' Views of Transition Planning by School Type*

	Junior Secondary School (n=770)			Senior Secondary School (n=258)					
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Collaboration with school staff and agencies outside the school	677	3.74	0.63	217	3.66	0.75	2	-1.40	0.12

*Note.** $p < .05$. ** $p < .01$. *** $p < .001$.

Participants agreed that collaboration with school staff and agencies outside the school ($M=3.66-3.74$) should be included in the transition planning process, although no significant difference was noted between the type of school in which participants worked ($z=-1.40$, $df=2$, $p>.05$).

To address research question 1, see Table 11 for Mann Whitney U tests by school region conducted for question 16 through 24 addressing differences in participants' transition beliefs. The results indicate that both Kgatleng region and South East region teachers agreed ($M=3.64-3.76$) that transitions for students with disabilities to postsecondary settings should include a written plan for each individual student with a disability. There was a significant difference reported by school region ($z=-3.09$, $df=2$, $p>.05$), with Kgatleng region teachers showing more agreement ($M=3.76$) than South East region teachers ($M=3.64$) that transitions should include a written plan for each student. Participants in the two school regions agreed ($M=3.63-3.78$) that transitions should include a variety of activities to help students transition to employment. School regions different in agreement ($z=-4.63$, $df=2$, $p>.05$), but the effect size (0.24) was

small. Kgatleng region teachers showed more agreement ($M=3.78$) than South East region teachers ($M=3.63$) that transition planning should include a variety of activities to help students transition to employment. All participants agreed that the transitions should include specific goals and objectives corresponding to specific post-school outcomes ($M=3.55-3.77$). Participants differed by school region again ($z=-6.34$, $df=2$, $p>.05$), but the effect size (0.34) was small. Kgatleng region teachers agreed more ($M=3.77$) with the survey item than South East region teachers ($M=3.55$). All participants by school type agreed that transition planning should include the strengths, abilities, priorities, interests, and needs of each student ($M=3.62-3.84$). Two (2) groups differed on agreement with this item ($z=-6.30$, $df=2$, $p>.05$), but the effect size (0.36) was small. Kgatleng region teachers agreed more ($M=3.84$) than South East region teachers ($M=3.62$) with the statement that transition planning should include the strengths, abilities, priorities, interests, and needs of each student. Moreover, participants agreed that transition planning should include constant assessments for individual students, resulting in securing employment after school ($M=3.59-3.76$). There was a significant difference between teachers from the two school regions on this item ($z=-3.85$, $df=2$, $p>.05$), with a small effect size (0.27). Kgatleng region teachers showed more agreement ($M=3.76$) than South East region teachers ($M=3.59$) on the same item.

Participants also agreed that teaching students both academic and functional skills was a key component of the transition planning process ($M=3.61-3.81$). A significant difference was noted between groups ($z=-5.85$, $df=2$, $p>.05$), but the effect size (0.33) was small. Kgatleng region teachers agreed more ($M=3.81$) than South East region teachers ($M=3.61$) that teaching students academic and functional skills was a key component of the transition planning process. Concerning postsecondary education and/or employment as the main outcomes following

Table 11

Mann Whitney U Analysis for Respondents' Views of Transition Planning by School Region

	Kgatleng Region (n=407)			South East Region (n=621)					
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
A written plan for each individual student with a disability	387	3.76	0.58	566	3.64	0.71	2	-3.09	0.18
A variety of activities to help transition to employment	385	3.78	0.58	575	3.63	0.67	2	-4.63	0.24
Specific goals and objectives corresponding to specific post-school outcomes	394	3.77	0.57	560	3.55	0.69	2	-6.34	0.34
The strengths, abilities, priorities, interests, and needs of each student	388	3.84	0.50	551	3.62	0.68	2	-6.30	0.36
Constant assessment resulting in securing employment after school	391	3.76	0.53	559	3.59	0.71	2	-3.85	0.27
Teaching students both academic and functional skills	388	3.81	0.52	555	3.61	0.65	2	-5.85	0.33
Postsecondary education and/or employment as the main outcomes following secondary school completion	386	3.77	0.56	558	3.46	0.70	2	-8.27	0.48
Involvement of students' parents/families in transition planning and service delivery	381	3.80	0.58	550	3.58	0.72	2	-5.59	0.33

Table 11 *continued**Mann Whitney U Analysis for Respondents' Views of Transition Planning by School Region*

	Kgatleng Region (n=407)			South East Region (n=621)					
<i>I believe that transition for students with disabilities to postsecondary settings should encompass the following components:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Collaboration with school staff and agencies outside the school	386	3.78	0.61	508	3.67	0.70	2	3.12	0.17

Note.* $p < .05$. ** $p < .01$. *** $p < .001$.

secondary school completion, participants agreed that this component was key ($M=3.46-3.77$). A significant group difference was noted on the item ($z=-8.27$, $df=2$, $p>.05$), as well as a small effect size (0.48). Again, Kgatleng region teachers showed more agreement ($M=3.77$) than South East region teachers ($M=3.46$) on this transition component. The involvement of students' parents/families in transition planning and service delivery was also noted as important ($M=3.58-3.80$), with a significant difference between Kgatleng and South East region teachers ($z=-5.59$, $df=2$, $p>.05$). Kgatleng region teachers agreed more ($M=3.80$) than South East region teachers ($M=3.58$) that students' parents/families should be included in transition planning and service delivery, but the effect size (0.33) was small. Regarding collaboration with school staff and agencies outside the school, participants agreed that this component should be included in the transition planning process ($M=3.67-3.78$). The two regions differed ($z=-3.12$, $df=2$, $p>.05$), with Kgatleng region teachers agreeing more ($M=3.78$) than South East region teachers ($M=3.67$) that there should be collaboration between school staff and agencies outside the school in the transition planning process.

Participants' "Do Not Know" Responses on Transition Knowledge

Analyses regarding participants who selected "Do Not Know" on items concerning understanding and knowledge of transition principles and practices is presented in Table 12. Ninety-nine (99) general education teachers (11.3%) answered "Do Not Know" as to whether they had comprehensive knowledge and understanding of the student transition planning process (see Form 3/Form 5). Additionally, 111 general education teachers (12.7%) answered "Do Not Know" when asked if they understood that transition planning began from Form 1 to Form 3/Form 4 to Form 5. Another 123 general education teachers (14.1%) responded "Do Not Know" on recognizing that planning involved continuous assessment for JCE/BGCSE. One hundred twelve (112) general education teachers (12.8%) answered "Do Not Know" when asked if they had knowledge regarding monitoring of academic and functional skills outcome goals. When asked if they knew that academic and functional skills outcome goals could be attained, 87 general education teachers (9.9%) selected "Do Not Know." Again, 95 (10.9%) answered "Do Not Know" regarding whether they knew that a student's planning was based on his/her strengths, abilities, priorities, interests, and needs. Ninety (90) general education teachers (10.3%) selected "Do Not Know" concerning whether they had knowledge that JCE/BGCSE instructional goals were linked to senior secondary education/postsecondary education. Again, 93 (10.0%) answered "Do Not Know" concerning having knowledge that JCE/BGCSE instructional goals were linked to technical and vocational education. Regarding JCE/BGCSE instructional goals, 95 (10.9%) general education teachers selected "Do Not Know" as to whether JCE/BGCSE instructional goals were linked to postsecondary employment. Additionally, 103 (11.8%) general education teachers responded "Do Not Know" when asked if

they had knowledge of transition services and supports for students with disabilities after completion of secondary education.

Diverging from general education teachers, when special education teachers answered whether they had comprehensive knowledge and understanding of the student transition planning process following completion of Form 3/Form 5, four (5.0%) answered “Do Not Know.” Two (2) special education teachers (2.5%) answered “Do Not Know” when asked if they knew that transition planning began from Form 1 to Form 3/Form 4 to Form 5. Another 10 special education teachers (12.5%) responded “Do Not Know” concerning knowledge that planning involved continuous assessment for JCE/BGCSE. Eleven (11) special education teachers (13.8%) answered “Do Not Know” when asked if they were informed regarding monitoring of academic and functional skills outcome goals. When special education teachers responded as to whether they knew that academic and functional skills outcome goals can be attained, one (1.3%) selected “Do Not Know.” Additionally, two (2.5%) answered “Do Not Know” regarding whether they knew that a student’s transition planning is based on his/her strengths, abilities, priorities, interests, and needs. Six (6) special education teachers (7.5%) selected “Do Not Know” concerning whether knew that JCE/BGCSE instructional goals were linked to senior secondary education/postsecondary education. Again, eight (10.0%) answered “Do Not Know” whether JCE/BGCSE instructional goals were linked to technical and vocational education. Regarding knowledge whether JCE/BGCSE instructional goals were linked to postsecondary employment, eight (10.0%) special education teachers answered “Do Not Know.” Furthermore, 13 (16.3%) selected “Do Not Know” when asked if they knew about transition services and supports for students with disabilities after completion of secondary education.

Table 12

Percentages of “Do Not Know” Responses of Transition Knowledge by Teacher Position

	General Education Teacher (<i>n</i> =875)		Special Education Teacher (<i>n</i> =80)		Guidance and Counseling Teacher (<i>n</i> =73)		Total (<i>N</i> =1028)	
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
The student transition planning process following completion of Form 3/Form 5	99	11.3	4	5.0	5	6.8	108	10.5
Planning begins from Form 1 to Form 3/Form 4 to Form 5	111	12.7	2	2.5	2	2.7	115	11.2
Planning involves continuous assessment for JCE/BGCSE	123	14.1	10	12.5	3	4.1	136	13.2
Monitoring of academic and functional skills outcome goals	112	12.8	11	13.8	2	2.7	125	12.2
Academic and functional skills outcome goals can be attained	87	9.9	1	1.3	1	1.4	89	8.7
A student’s planning is based on his/her strengths, abilities, priorities, interests, and needs	95	10.9	2	2.5	8	11.0	105	10.2
JCE/BGCSE instructional goals are linked to senior secondary education/postsecondary education	90	10.3	6	7.5	6	8.2	102	9.9
JCE/BGCSE instructional goals are linked to technical and vocational education	93	10.6	8	10.0	7	9.0	108	10.5

Table 12 *continued**Percentages of “Do Not Know” Responses of Transition Knowledge by Teacher Position*

	General Education Teacher (<i>n</i> =875)		Special Education Teacher (<i>n</i> =80)		Guidance and Counseling Teacher (<i>n</i> =73)		Total (<i>N</i> =1028)	
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
JCE/BGCSE instructional goals are linked to postsecondary employment	95	10.9	8	10.0	10	13.7	113	11.0
Transition services and supports for students with disabilities after completion of secondary education	103	11.8	13	16.3	6	8.2	122	11.9

Note. Percentages represent data reported by category and totals.

Regarding knowledge of the student transition planning after completion of Form 3/Form 5, five (6.8%) guidance and counseling teachers answered “Do Not Know.” Two (2) guidance and counseling teachers (2.7%) selected “Do Not Know” when asked if they knew that transition planning began from Form 1 to Form3/Form 4 to Form 5. Another three teachers (4.1%) responded “Do Not Know” that transition planning involved continuous assessment for JCE/BGCSE. Two (2) guidance and counseling teachers (2.7%) answered “Do Not Know” when asked if they knew about monitoring of academic and functional skills outcome goals. One guidance and counseling teacher (1.4%) selected “Do Not Know” when asked if she/he had knowledge that academic and functional skills outcome goals can be attained. Additionally, eight teachers (11.0%) selected “Do Not Know” regarding whether they knew that a student’s

planning is based on his/her strengths, abilities, interests, and needs. Six (6) guidance and counseling teachers (8.2%) selected “Do Not Know” as to whether they knew that JCE/BGCSE instructional goals were linked to senior secondary education/postsecondary education. Again, seven (9.0%) answered “Do Not Know” concerning knowledge of JCE/BGCSE instructional goals linked to technical and vocational education. Regarding knowledge as to whether JCE/BGCSE instructional goals were linked to postsecondary employment, 10 (13.7%) guidance and counseling teachers answered “Do Not Know.” Furthermore, six (8.2%) selected “Do Not Know” when asked if they had knowledge of transition services and supports for students with disabilities after completion of secondary education.

The understanding and knowledge of general education teachers, special education teachers, and guidance and counseling teachers differed regarding transition principles and practices. There was no group of participants sorted by teacher position whose percentage of “Do Not Know” responses equaled or surpassed the 25% cut-off point that would call for professional development or training. A “Do Not Know” response rate below 17% supports the conclusion that these participants understood transition principles and practices.

Percentages and frequencies of participants’ “Do Not Know” responses by school type, presented in Table 13, regard participants’ understanding and knowledge of transition principles and practices. When junior secondary teachers answered whether they had comprehensive knowledge and understanding of the student transition planning process following completion of Form 3, 74 (9.6%) answered “Do Not Know.” Eighty-five (85) junior secondary teachers (11.0%) answered “Do Not Know” when asked if they believed that transition planning began from Form 1 to Form 3. Another 108 (14.0%) responded “Do Not Know” as to whether planning involved continuous assessment for JCE. Eighty (80) junior secondary teachers (10.4%) selected

“Do Not Know” when asked if they had knowledge regarding monitoring of academic and functional skills outcome goals. When asked if they had knowledge that academic and functional skills outcome goals can be attained, 62 junior secondary teachers (8.1%) selected “Do Not Know.” Additionally, 65 (8.4%) answered “Do Not Know” regarding whether they knew that a student’s planning is based on his/her strengths, abilities, priorities, interests, and needs. Seventy-six (76) junior secondary teachers (9.9%) selected “Do Not Know” concerning whether they knew that JCE instructional goals were linked to senior secondary education. Again, 90 (11.7%) answered “Do Not Know” concerning JCE instructional goals’ linkage to technical and vocational education. Regarding knowledge whether JCE instructional goals linked to postsecondary employment, 93 (12.1%) junior secondary teachers answered “Do Not Know.” Also, 89 (11.6%) respondents selected “Do Not Know” when asked if they were informed of transition services and supports for students with disabilities after completion of secondary education.

Furthermore, 34 senior secondary teachers (13.2%) answered “Do Not Know” as to their knowledge and understanding of the student transition planning process following completion of Form 5. Thirty (30) senior secondary teachers (11.6%) answered “Do Not Know” when responding to whether they were knowledgeable that transition planning began from Form 4 to Form 5. Another 28 (10.9%) responded “Do Not Know” corresponding to being knowledgeable that planning involved continuous assessment for BGCSE. When asked about knowledge regarding monitoring of academic and functional skills outcome goals, 45 senior secondary teachers (17.4%) answered “Do Not Know.” Twenty-seven (27) senior secondary teachers (10.5%) selected “Do Not Know” concerning knowledge that academic and functional skills outcome goals can be attained. Again, 40 teachers (15.5%) answered “Do Not Know” regarding

Table 13

Percentages of “Do Not Know” Responses of Transition Knowledge by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Total (N=1028)	
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
The student transition planning process following completion of Form 3/Form 5	74	9.6	34	13.2	108	10.5
Planning begins from Form 1 to Form 3/Form 4 to Form 5	85	11.0	30	11.6	115	11.2
Planning involves continuous assessment for JCE/BGCSE	108	14.0	28	10.9	136	13.2
Monitoring of academic and functional skills outcome goals	80	10.4	45	17.4	125	12.2
Academic and functional skills outcome goals can be attained	62	8.1	27	10.5	89	8.7
A student’s planning is based on his/her strengths, abilities, priorities, interests, and needs	65	8.4	40	15.5	105	10.2
JCE/BGCSE instructional goals are linked to senior secondary education/postsecondary education	76	9.9	26	10.1	102	9.9
JCE/BGCSE instructional goals are linked to technical and vocational education	90	11.7	18	7.0	108	10.5
JCE/BGCSE instructional goals are linked to postsecondary employment	93	12.1	20	7.8	113	11.0

Table 13 *continued**Percentages of “Do Not Know” Responses of Transition Knowledge by School Type*

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Total (N=1028)	
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Transition services and supports for students with disabilities after completion of secondary education	89	11.6	33	12.8	122	11.9

Note. Percentages represent data reported by category and totals.

whether they knew that a student’s planning is based on his/her strengths, abilities, priorities, interests, and needs. Twenty-six (26) senior secondary teachers (10.1%) selected “Do Not Know” concerning whether they were aware that BGCSE instructional goals were linked to postsecondary education. Again, 18 (7.0%) answered “Do Not Know” that BGCSE instructional goals were linked to technical and vocational education. Regarding knowledge whether BGCSE instructional goals were linked to postsecondary employment, 20 (7.8%) senior secondary teachers answered “Do Not Know.” Additionally, 33 (12.8%) selected “Do Not Know” as to whether they knew of transition services and supports for students with disabilities after completion of secondary education.

Participants in junior and senior secondary schools expressed diverse understanding and knowledge of transition principles and practices. There was no group of participants sorted by type of school whose percentage of “Do Not Know” responses equaled or surpassed the 25% threshold that would point to the need for professional development or training. It can be

concluded that participants understood transition principles and practices, since the “Do Not Know” responses ranged from 7.0% -17.4%.

Percentages and frequencies of participants’ “Do Not Know” responses by school region, presented in Table 14, concern participants’ understanding and knowledge of transition principles and practices. When Kgatleng region teachers answered whether they had comprehensive knowledge and understanding of the student transition planning process following completion of Form 3/Form 5, 18 (4.4%) answered “Do Not Know.” Twenty-two (22) Kgatleng region teachers (5.4%) answered “Do Not Know” when asked if they were knowledgeable that transition planning began from Form 1 to Form 3/Form 4 to Form 5. Another 35 (8.6%) responded “Do Not Know” concerning knowledge that planning involved continuous assessment for JCE/BGCSE. Twenty-five (25) Kgatleng region teachers (6.1%) answered “Do Not Know” regarding monitoring of academic and functional skills outcome goals. When Kgatleng region teachers answered whether they had knowledge that academic and functional skills outcome goals can be attained, 18 (4.4%) selected “Do Not Know.” Again 24 (5.9%) answered “Do Not Know” whether they knew that a student’s planning is based on his/her strengths, abilities, priorities, interests, and needs. Nineteen (19) Kgatleng region teachers (4.7%) selected “Do Not Know” concerning whether they had knowledge that JCE/BGCSE instructional goals were linked to senior secondary education/postsecondary education. Additionally, 28 (6.9%) answered “Do Not Know” concerning knowledge that JCE/BGCSE instructional goals were linked to technical and vocational education. As to whether JCE/BGCSE instructional goals were linked to postsecondary employment, 24 (5.9%) Kgatleng region teachers answered “Do Not Know.” Further, 22 (5.4%) selected “Do Not Know” when asked if they knew of transition services and supports for students with disabilities after completion of secondary education.

Moreover, when South East region teachers answered whether they had comprehensive knowledge and understanding of the student transition planning process following completion of Form 3/Form 5, 90 (14.5%) answered “Do Not Know.” Ninety-three (93) South East region teachers (15.0%) answered “Do Not Know” as to whether transition planning began from Form 1 to Form 3/Form 4 to Form 5. Another 101 (16.3%) responded “Do Not Know” concerning knowledge that planning involved continuous assessment for JCE/BGCSE. One hundred (100) South East region teachers (16.1%) selected “Do Not Know” as to whether they had knowledge regarding monitoring of academic and functional skills outcome goals. When South East region teachers responded to whether knowledge that academic and functional skills outcome goals can be attained, 71 (11.4%) selected “Do Not Know.” Again 81 (13.0%) answered “Do Not Know” whether a student’s planning is based on his/her strengths, abilities, priorities, interests, and needs. Eighty-three (83) South East region teachers (13.4%) selected “Do Not Know” regarding knowledge that JCE/BGCSE instructional goals were linked to senior secondary education/postsecondary education. Furthermore, 80 (12.9%) answered “Do Not Know” concerning JCE/BGCSE instructional goals’ linkage to technical and vocational education. Regarding knowledge whether JCE/BGCSE instructional goals were linked to postsecondary employment, 89 (14.3%) South East region teachers answered “Do Not Know.” Additionally, 100 (16.1%) selected “Do Not Know” when asked if they knew of transition services and supports for students with disabilities after completion of secondary education.

Participants in the Kgatleng and South East school regions expressed diverse understanding and knowledge of transition principles and practices. There was no group of participants sorted by school region whose percentage of “Do Not Know” responses equaled or surpassed the 25% threshold that would point to the need for professional development or

Table 14

Percentages of “Do Not Know” Responses of Transition Knowledge by School Region

	Kgatleng Region (n=407)		South East Region (n=621)		Total (N=1028)	
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
The student transition planning process following completion of Form 3/Form 5	18	4.4	90	14.5	108	10.5
Planning begins from Form 1 to Form 3/Form 4 to Form 5	22	5.4	93	15.0	115	11.2
Planning involves continuous assessment for JCE/BGCSE	35	8.6	101	16.3	136	13.2
Monitoring of academic and functional skills outcome goals	25	6.1	100	16.1	125	12.2
Academic and functional skills outcome goals can be attained	18	4.4	71	11.4	89	8.7
A student’s planning is based on his/her strengths, abilities, priorities, interests, and needs	24	5.9	81	13.0	105	10.2
JCE/BGCSE instructional goals are linked to senior secondary education/postsecondary education	19	4.7	83	13.4	102	9.9
JCE/BGCSE instructional goals are linked to technical and vocational education	28	6.9	80	12.9	108	10.5
JCE/BGCSE instructional goals are linked to postsecondary employment	24	5.9	81	13.0	113	11.0
Transition services and supports for students with disabilities after completion of secondary education	22	5.4	100	16.1	122	11.9

Note. Percentages represent data reported by category and totals.

training. The rate of “Do Not Know” responses for these groups ranged from 4.4%-16.3%. Thus, the conclusion was that participants understood transition principles and practices.

Participants’ Differences on Transition Knowledge

Overall, participants agreed that they had knowledge and understanding of the transition process for students with disabilities concerning the following: (a) monitoring of academic and functional skills outcome goals ($M=3.24$.); (b) academic and functional skills outcome goals can be attained ($M=3.31$); (c) a student’s planning is based on his/her strengths, abilities, priorities, interests, and needs ($M=3.03$); and (d) transition services and supports for students with disabilities after completion of secondary education ($M=2.88$). To determine statistical differences in participants’ knowledge and understanding of the transition process by teacher position, Kruskal-Wallis tests were conducted. Table 15 includes Kruskal-Wallis tests results from analysis of questions 28, 29, 30, and 34. General education teachers, special education teachers, and guidance and counseling teachers tended to agree or agree ($M=2.87$ - 3.29) that they had comprehensive knowledge and understanding of transition for students with disabilities regarding monitoring of academic and functional skills outcome goals. There was significant difference reported by teacher position ($\chi^2= 22.86$, $df= 2$, $p>.05$), although with a small effect size (0.16). A Mann Whitney U test was run as a follow-up by comparing position groups. There were significant differences between general education and special education teachers, as well as between general education and guidance and counseling teachers. Special education teachers ($M=3.29$) agreed more than general education teachers ($M=2.87$) that they had knowledge and understanding of transitions for students with disabilities regarding monitoring of academic and functional skills outcome goals ($z=-4.15$, $p<.01$). Guidance and counseling teachers ($M=3.11$) also showed more agreement than general education teachers ($M=2.87$) on this item ($z=-2.77$,

Table 15

Kruskal-Wallis Analysis for Respondents' Transition Knowledge by Teacher Position

	General Education Teacher (n=875)			Special Education Teacher (n=80)			Guidance and Counseling Teacher (n=73)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Monitoring of academic and functional skills outcome goals	763	2.87	1.00	69	3.29	1.00	71	3.11	0.85	2	22.86	0.16
Academic and functional skills outcome goals can be attained	788	3.09	0.97	79	3.34	1.05	72	3.18	0.86	2	11.62	0.11
A student's planning is based on his/her strengths, abilities, priorities, interests, and needs	780	3.03	0.92	78	2.90	1.00	65	3.25	0.87	2	5.67	0.08
Transition services and supports for students with disabilities after completion of secondary education	772	2.89	0.96	67	2.84	1.16	67	2.82	0.94	2	0.42	0.02

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

$p < .01$). All participants agreed ($M = 3.09-3.34$) that academic and functional skills outcome goals can be attained in transitions. Responses varied by teacher position ($\chi^2 = 11.62$, $df = 2$, $p > .05$), with a small effect size (0.11). A Mann Whitney U post hoc test indicated significant differences between general and special education teachers, as well as between general education and guidance and counseling teachers. Special education teachers agreed more ($M = 3.34$) than general education teachers ($M = 3.09$) that the individual teachers knew that academic and functional outcome goals can be attained ($z = -2.48$, $p < .01$). Guidance and counseling teachers ($M = 3.18$) also showed more agreement than general education teachers ($M = 3.09$) on this item ($z = -2.59$, $p < .01$).

General, special education, and guidance and counseling teachers all tended to agree or agreed ($M = 2.90-3.25$) that a student's planning is based on his/her strengths, abilities, priorities, interests, and needs. There was no significant difference between position groups on this item ($\chi^2 = 5.67$, $df = 2$, $p > .05$). Participants also tended to agree ($M = 2.82-2.89$) that they had knowledge of transition services and supports for students with disabilities after completion of secondary education. Similarly, there was no significant difference between position groups in responses to this item ($\chi^2 = 0.42$, $df = 2$, $p > .05$).

Table 16 depicts the results of Mann Whitney U tests conducted on responses to questions 28, 29, 30, and 34 to determine statistical differences by school type in participants' knowledge and understanding of the transition process. Junior secondary and senior secondary teachers agreed ($M = 3.17-3.47$) that they had knowledge and understanding of transitions for students with disabilities regarding monitoring of academic and functional skills outcome goals. There was a significant difference reported by teacher position ($z = -3.70$, $df = 2$, $p > .05$), with a small effect size (0.30). Junior secondary teachers showed less agreement ($M = 3.17$) than senior secondary teachers ($M = 3.47$) that they had comprehensive knowledge and understanding of

transition for students with disabilities regarding monitoring of academic and functional skills outcome goals. All participants agreed ($M=3.26-3.44$) that they had knowledge that academic and functional skills outcome goals can be attained. Responses differed by school type ($z=-2.60$,

Table 16

Mann Whitney U Analysis for Respondents' Transition Knowledge by School Type

	Junior Secondary Teacher ($n=770$)			Senior Secondary Teacher ($n=258$)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Monitoring of academic and functional skills outcome goals	690	3.17	1.03	213	3.47	0.83	2	-3.70	0.30
Academic and functional skills outcome goals can be attained	708	3.26	0.99	231	3.44	0.88	2	-2.60	0.19
A student's planning is based on his/her strengths, abilities, priorities, interests, and needs	705	2.93	0.90	218	3.36	0.94	2	-0.50	0.47
Transition services and supports for students with disabilities after completion of secondary education	681	2.77	0.93	225	3.22	1.02	2	-6.83	0.47

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

$df=2$, $p>.05$), with junior secondary teachers agreeing less ($M=3.26$) than senior secondary teachers ($M=3.44$) that they had comprehensive knowledge that academic and functional outcome goals can be attained. Regarding participants' knowledge that a student's transition planning is based on his/her strengths, abilities, priorities, interests, and needs, junior and senior secondary teachers tended to agree or agreed ($M=2.93-3.36$). There was a significant difference

between junior and senior secondary teachers on this item ($z=-7.50$, $df= 2$, $p>.05$) with an effect size of 0.47. Junior secondary teachers showed less agreement ($M=2.93$) than senior secondary teachers ($M=3.36$) on the same item. Participants also tended to agree or agreed ($M=2.77-3.22$) that they had knowledge of transition services and supports for students with disabilities after completion of secondary education. Similarly, there was a significant difference between junior and senior secondary teachers on this item ($z=-6.83$, $df= 2$, $p>.05$), with a small effect size (0.47). Junior secondary teachers agreed less ($M=2.77$) than senior secondary teachers ($M=3.22$) that they had knowledge of transition services and supports for students with disabilities after completion of secondary education.

Table 17 presents results of Mann Whitney U tests conducted on responses to questions 28, 29, 30, and 34 by school region, to determine differences in participants' knowledge and understanding of the transition process. Kgatleng and South East region teachers agreed ($M=3.08-3.47$) that they had comprehensive knowledge and understanding of transitions for students with disabilities regarding monitoring of academic and functional skills outcome goals. There was a significant difference reported by school region ($z=-6.22$, $df= 2$, $p>.05$), with a small effect size (0.40). Kgatleng region teachers showed more agreement ($M=3.47$) than South East region teachers ($M=3.08$) that they had comprehensive knowledge and understanding of transition for students with disabilities regarding monitoring of academic and functional skills outcome goals. All participants agreed ($M=3.14-3.54$) that transition that academic and functional skills outcome goals can be attained. There was a significant difference reported by school region ($z=-7.00$, $df= 2$, $p>.05$), with a small effect size (0.42). Kgatleng region teachers agreed more ($M=3.54$) than South East region teachers ($M=3.14$) that academic and functional outcome goals can be attained. Regarding participants' knowledge that a student's planning is

based on his/her strengths, abilities, priorities, interests, and needs, Kgatleng and South East region teachers tended to agree or agreed ($M=2.91-3.20$). Kgatleng and South East region teachers differed significantly on this item ($z=-4.27$, $df=2$, $p>.05$), showing a small effect size

Table 17

Mann Whitney U Analysis for Respondents' Transition Knowledge by School Region

	Kgatlang Region ($n=407$)			South East Region ($n=621$)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Monitoring of academic and functional skills outcome goals	382	3.47	0.87	521	3.08	1.04	2	-6.22	0.40
Academic and functional skills outcome goals can be attained	389	3.54	0.85	550	3.14	1.02	2	-7.00	0.42
A student's planning is based on his/her strengths, abilities, priorities, interests, and needs	383	3.20	0.82	540	2.91	0.98	2	-4.27	0.32
Transition services and supports for students with disabilities after completion of secondary education	385	3.15	0.86	521	2.68	1.00	2	-7.19	0.50

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

(0.32). Kgatleng region teachers showed more agreement ($M=3.20$) than South East region teachers ($M=2.91$) on the same item. Participants also tended to agree or agreed ($M=2.68-3.15$) that they knew of transition services and supports for students with disabilities after completion of secondary education. Similarly, there was a significant difference between Kgatleng and South East region teachers on this item ($z=-7.19$, $df=2$, $p>.05$), with a moderate effect size

(0.50). Kgatleng region teachers agreed more ($M=3.15$) than teachers from the South East region ($M=2.68$) that they knew of transition services and supports for students with disabilities after completion of secondary education.

Overall, participants agreed that they had knowledge and understanding of the transition process for students with disabilities concerning the following items: (a) the student transition planning process following completion of Form 3 ($M=2.71$); (b) planning begins from Form 1 to Form 3 ($M=2.97$); (c) planning involves continuous assessment for JCE ($M=3.11$); (d) JCE instructional goals are linked to senior secondary education ($M=3.17$); (e) JCE instructional goals are linked to technical and vocational education ($M=3.01$); and (f) JCE instructional goals are linked to postsecondary employment ($M=3.04$).

Table 18 provides Kruskal-Wallis tests results conducted by teacher position for questions 25, 26, 27, 31, 32, and 33 to determine statistical differences in the knowledge and understanding of the transition process among participants at the junior secondary school type. General education teachers, special education teachers, and guidance and counseling teachers tended to agree or agreed ($M=2.68$ - 3.02) that they had knowledge and understanding of transitions for students with disabilities regarding the student transition planning process following completion of Form 3. There was a significant difference reported by teacher position ($\chi^2= 6.60$, $df= 2$, $p>.05$), with a small effect size (0.10). A Mann Whitney U test run to followed-up by comparing position groups. There was a significant difference between general education and guidance and counseling teachers, with general education teachers showing less agreement ($M=2.68$) than guidance and counseling teachers ($M=3.02$) in having comprehensive knowledge and understanding of the student transition planning process following completion of Form 3 ($z=-2.49$, $p<.01$). Participants tended to agree or agreed ($M=2.64$ - 3.10) that they had knowledge

that planning began from Form 1 to Form 3. There was no significant difference reported by teacher position ($\chi^2= 5.66$, $df= 2$, $p>.05$).

General, special education, and guidance and counseling teachers tended to agree or agreed that planning involved continuous assessment for JCE ($M=2.67-3.19$). Position groups differed significantly on this item ($\chi^2= 7.76$, $df= 2$, $p>.05$), with a small effect size (0.11). Results from a Mann Whitney *U* post hoc test demonstrated a significant difference between general and special education teachers. General education teachers agreed more ($M=3.14$) than special education teachers ($M=2.67$) that planning involved continuous assessments for JCE ($z=-2.68$, $p<.01$). Participants also tended to agree or agreed ($M=2.68-3.73$) that they knew that JCE instructional goals were linked to senior secondary education. Similarly, there was a significant difference between position groups on this item ($\chi^2= 29.69$, $df= 2$, $p>.05$), with a small effect size (0.21). Results from a Mann Whitney *U* post hoc test demonstrated that there were significant differences between general and special education teachers, between general education and guidance and counseling teachers, as well as between special education and guidance and counseling teachers. General education teachers agreed more ($M=3.16$) than special education teachers ($M=2.68$) that they knew that JCE instructional goals were linked to senior secondary education ($z=-3.52$, $p<.01$). General education teachers ($M=3.16$) showed less agreement than guidance and counseling teachers ($M=3.73$) on this item ($z=-3.85$, $p<.01$). Additionally, special education teachers ($M=2.68$) showed less agreement than guidance and counseling teachers ($M=3.73$) on the same item ($z=-5.52$, $p<.01$).

Furthermore, participants tended to agree or agreed ($M=2.58-3.07$) that they knew that JCE instructional goals were linked to technical and vocational education. Respondents' answers differed by teacher position ($\chi^2= 29.69$, $df= 2$, $p>.05$), with a small effect size (0.15). Results

Table 18

Kruskal Wallis Analysis for Junior Secondary School Respondents' Transition Knowledge by Teacher Position

	General Education Teacher (n=662)			Special Education Teacher (n=57)			Guidance and Counseling Teacher (n=51)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
The student transition planning process following completion of Form 3	592	2.68	0.92	54	2.72	1.22	50	3.02	0.82	2	6.60	0.10
Planning begins from Form 1 to Form 3	580	2.99	1.15	56	2.64	1.21	49	3.10	0.68	2	5.66	0.09
Planning involves continuous assessment for JCE	566	3.14	1.09	48	2.67	1.26	48	3.19	0.73	2	7.76	0.11
JCE instructional goals are linked to senior secondary education	592	3.16	1.08	53	2.68	1.11	49	3.73	0.64	2	29.69	0.21
JCE instructional goals are linked to technical and vocational education	582	3.07	1.10	50	2.58	1.11	48	2.85	0.65	2	16.25	0.15

Table 18 *continued*

Kruskal-Wallis Analysis for Junior Secondary School Respondents' Transition Knowledge by Teacher Position

	General Education Teacher (<i>n</i> =662)			Special Education Teacher (<i>n</i> =57)			Guidance and Counseling Teacher (<i>n</i> =51)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
JCE instructional goals are linked to postsecondary employment	582	3.08	1.09	50	2.64	1.06	45	2.93	0.45	2	15.43	0.15

*Note.** $p < .05$. ** $p < .01$. *** $p < .001$.

from a Mann Whitney *U* post hoc test supported the conclusion that there were significant differences between general and special education teachers, as well as between general education and guidance and counseling teachers. General education teachers agreed more ($M=3.07$) than special education teachers ($M=2.58$) that they knew that JCE instructional goals were linked to technical and vocational education ($z=-3.24$, $p < .01$). General education teachers ($M=3.07$) also showed more agreement than guidance and counseling teachers ($M=2.85$) on this item ($z=-2.67$, $p < .01$). Participants tended to agree or agreed ($M=2.64$ - 3.08) that they had comprehensive knowledge that JCE instructional goals were linked to postsecondary employment. There was a significant difference reported by teacher position ($\chi^2= 15.43$, $df= 2$, $p > .05$), with a small effect

size (0.15). A Mann Whitney *U* post hoc results supported the conclusion that significant differences in responses existed between general and special education teachers, as well as between general education and guidance and counseling teachers. General education teachers agreed more ($M=3.08$) than special education teachers ($M=2.64$) that they knew that JCE instructional goals were linked to postsecondary employment ($z=-3.14, p<.01$). General education teachers ($M=3.08$) also demonstrated more agreement than guidance and counseling teachers ($M=2.93$) on this item ($z=-2.61, p<.01$).

Table 19 presents results of Mann Whitney *U* tests conducted for questions 25, 26, 27, 31, 32, and 33 by school region to determine statistical differences in the knowledge and understanding of the transition process among participants at the junior secondary school type. Kgatleng and South East region teachers tended to agree or agreed ($M=2.65-2.80$) that they had knowledge and understanding of transitions for students with disabilities regarding the student transition planning process following completion of Form 3. There was no significant difference reported by school region ($z=-1.34, df= 2, p>.05$). Participants tended to agree or agreed ($M=2.76-3.30$) that they knew that planning began from Form 1 to Form 3. School regions significantly differed ($z=-6.10, df= 2, p>.05$), with a small effect size (0.49). Kgatleng region teachers agreed more ($M=3.30$) than South East region teachers ($M=2.76$) that they knew that transition planning began from Form 1 to Form 3.

Regarding participants' knowledge that planning involved continuous assessment for JCE, Kgatleng and South East region teachers tended to agree or agreed ($M=2.92-3.40$), with a significant difference between school regions ($z=-5.81, df= 2, p>.05$) and a small effect size (0.45). Kgatleng region teachers agreed more ($M=3.40$) than South East region teachers ($M=2.92$) that they knew that transition planning involved continuous assessments for JCE.

Table 19

Mann Whitney U Analysis for Junior Secondary School Respondents' Transition Knowledge by School Region

	Kgatleng Region (n=293)			South East Region (n=477)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
The student transition planning process following completion of Form 3	275	2.80	0.79	421	2.65	1.03	2	-1.34	0.16
Planning begins from Form 1 to Form 3	271	3.30	0.99	414	2.76	1.17	2	-6.10	0.49
Planning involves continuous assessment for JCE	259	3.40	0.94	403	2.92	1.13	2	-5.81	0.45
JCE instructional goals are linked to senior secondary education	274	3.42	0.92	420	3.00	1.14	2	-5.05	0.40
JCE instructional goals are linked to technical and vocational education	268	3.34	0.94	412	2.81	1.12	2	-6.48	0.50
JCE instructional goals are linked to postsecondary employment	269	3.37	0.89	408	2.82	1.11	2	-6.64	0.54

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Participants also agreed ($M=3.00-3.42$) that they knew that JCE instructional goals were linked to senior secondary education. Similarly, there was a significant difference between school regions on this item ($z=-5.05$, $df=2$, $p>.05$) with a small effect size (0.40). Kgatleng region

teachers agreed more ($M=3.42$) than South East region teachers ($M=3.00$) that they knew that JCE instructional goals were linked to senior secondary education.

Participants also tended to agree or agreed ($M=2.81-3.34$) that they knew that for transitions, JCE instructional goals were linked to technical and vocational education. There was a significant difference reported by school region ($z=-6.48$, $df= 2$, $p>.05$), with a moderate effect size (0.50). Kgatleng region teachers agreed more ($M=3.34$) than South East region teachers ($M=2.81$) that they knew that JCE instructional goals were linked to technical and vocational education. Moreover, participants tended to agree or agreed ($M=2.82-3.37$) that they knew that for transitions, JCE instructional goals were linked to postsecondary employment. There was a significant difference reported by school region ($z=-6.64$, $df= 2$, $p>.05$), with a moderate effect size (0.54). Kgatleng region teachers agreed more ($M=3.37$) than South East region teachers ($M=2.82$) that they knew that JCE instructional goals were linked to postsecondary employment.

Overall, in most cases participants agreed that they had comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following items: (a) the student transition planning process following completion of Form 5 ($M=3.05$); (b) planning begins from Form 4 to Form 5 ($M=3.20$); (c) planning involves continuous assessment for BGCSE ($M=3.42$); (d) BGCSE instructional goals are linked to postsecondary education ($M=3.29$); and (e) BGCSE instructional goals are linked to technical and vocational education ($M=2.61$). Conversely, participants disagreed that (f) BGCSE instructional goals are linked to postsecondary employment ($M=2.13$).

Table 20 presents results of Kruskal-Wallis tests conducted for questions 25, 26, 27, 31, 32, and 33 by teacher position to determine statistical differences in the knowledge and understanding of the transition process among participants at the senior secondary school type.

General education teachers, special education teachers, and guidance and counseling teachers tended to disagree, tended to agree, or agreed ($M=2.28-3.32$) that they had comprehensive knowledge and understanding of transition for students with disabilities regarding the student transition planning process following completion of Form 5. There was a significant difference reported by teacher position ($\chi^2= 11.71$, $df= 2$, $p>.05$), with a small effect size (0.23). A Mann Whitney U test was run to follow up by comparing position groups. General education and guidance and counseling teachers differed significantly, as did special education teachers and guidance and counseling teachers. General education teachers showed more agreement ($M=3.09$) than guidance and counseling teachers ($M=2.28$) that they had knowledge and understanding of the student transition planning process following completion of Form 5 ($z=-3.16$, $p<.01$). Special education teachers showed a higher level of agreement ($M=3.32$) than guidance and counseling teachers ($M=2.28$) on the same item ($z=-3.04$, $p<.01$). Participants tended to agree or agreed ($M=2.50-3.28$) that they knew that transition planning began from Form 4 to Form 5. There was a significant difference reported by teacher position ($\chi^2= 8.94$, $df= 2$, $p>.05$), with a small effect size (0.20). General education teachers demonstrated more agreement ($M=3.28$) than guidance and counseling teachers ($M=2.50$) in knowing and understanding that planning began from Form 4 to Form 5 ($z=-2.89$, $p<.01$).

Regarding general, special education, and guidance and counseling teachers' knowledge that planning involved continuous assessment for BGCSE, all groups tended to agree or agreed ($M=2.91-3.51$). There was a significant difference between position groups on this item ($\chi^2= 10.04$, $df= 2$, $p>.05$), with a small effect size (0.21). Results from a Mann Whitney U post hoc test demonstrated that there were significant differences between general and special education teachers, as well as between general and guidance and counseling teachers. General education

teachers agreed more ($M=3.51$) than special education teachers ($M=3.14$) that they knew that planning involved continuous assessment for BGCSE ($z=-2.38, p<.05$). General education teachers also had a higher agreement level ($M=3.51$) than guidance and counseling teachers ($M=2.91$) on this item ($z=-2.40, p<.05$). Participants tended to disagree, tended to agree, or agreed ($M=2.33-3.67$) that they knew that BGCSE instructional goals were linked to postsecondary education. Similarly, there was a significant difference between position groups on this item ($\chi^2= 24.12, df= 2, p>.05$) with a medium effect size (0.32). Results from Mann Whitney U post hoc test demonstrated significant differences between general and guidance and counseling teachers, as well as between special education and guidance and counseling teachers. General education teachers agreed more ($M=3.34$) than guidance and counseling teachers ($M=2.33$) that they knew that BGCSE instructional goals were linked to postsecondary education ($z=-4.58, p<.01$). Special education teachers ($M=3.67$) showed more agreement than guidance and counseling teachers ($M=2.33$) on this item ($z=-4.59, p<.01$). Participants tended to disagree or tended to agree ($M=2.17-2.82$) that for transitions, they knew that BGCSE instructional goals were linked to technical and vocational education. There was a significant difference reported by teacher position ($\chi^2= 6.13, df= 2, p>.05$), with a small effect size (0.16). Results of a Mann Whitney U test demonstrated significant differences between general education teachers and guidance and counseling teachers, as well as between special education and guidance and counseling teachers. General education teachers tended to agree more ($M=2.63$) than guidance and counseling teachers ($M=2.17$) that they knew that BGCSE instructional goals were linked to technical and vocational education ($z=-2.18, p<.05$). Special education teachers ($M=2.82$) also showed more agreement than guidance and counseling teachers ($M=2.17$) on this item ($z=-2.16, p<.01$). Moreover, participants disagreed, tended to agree, or agreed ($M=2.03-3.09$) that they

Table 20

Kruskal Wallis Analysis for Senior Secondary School Respondents' Transition Knowledge by Teacher Position

	General Education Teacher (n=213)			Special Education Teacher (n=23)			Guidance and Counseling Teacher (n=22)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
The student transition planning process following completion of Form 5	184	3.09	1.10	22	3.32	1.17	18	2.28	1.02	2	11.71	0.23
Planning begins from Form 4 to Form 5	184	3.28	1.04	22	3.18	0.85	22	2.50	1.30	2	8.94	0.20
Planning involves continuous assessment for BGCSE	186	3.51	0.79	22	3.14	0.83	22	2.91	1.23	2	10.04	0.21
BGCSE instructional goals are linked to postsecondary education	193	3.34	0.96	21	3.67	0.48	18	2.33	0.91	2	24.12	0.32

Table 20 *continued*

Kruskal-Wallis Analysis for Senior Secondary School Respondents' Transition Knowledge by Teacher Position

	General Education Teacher (n=213)			Special Education Teacher (n=23)			Guidance and Counseling Teacher (n=22)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
BGCSE instructional goals are linked to technical and vocational education	200	2.63	0.76	22	2.82	0.80	18	2.17	0.99	2	6.13	0.16
BGCSE instructional goals are linked to postsecondary employment	198	2.03	1.19	22	3.09	0.61	18	2.17	0.99	2	18.36	0.28

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

knew that for transitions BGCSE instructional goals were linked to postsecondary employment. There was a significant difference reported by teacher position ($\chi^2 = 18.36$, $df = 2$, $p > .05$), with a small effect size (0.28). Results of a Mann Whitney *U* post hoc test demonstrated significant differences between general and special education teachers, as well as between special education and guidance and counseling teachers. Special education teachers agreed more ($M = 3.09$) than

general education teachers ($M=2.03$) that they knew that BGCSE instructional goals were linked to postsecondary employment ($z=-4.18, p<.01$). Special education teachers ($M=3.09$) showed more agreement than guidance and counseling teachers ($M=2.17$) on this item ($z=-3.13, p<.01$).

Table 21 provides results from Mann Whitney U tests conducted by school region for questions 25, 26, 27, 31, 32, and 33 to determine statistical differences in the knowledge and understanding of the transition process among participants at the senior secondary school type. Kgatleng and South East region teachers tended to disagree, tended to agree, or agreed ($M=2.48$ - 3.60) that they knew and understood the student transition planning process following completion of Form 5 for students with disabilities. There was a significant difference reported by school region ($z=-7.96, df= 2, p>.05$), with Kgatleng region teachers showing more agreement ($M=3.60$) than South East region teachers ($M=2.48$) on this item. Participants tended to agree or agreed ($M=2.81$ - 3.59) that they had knowledge that transition planning began from Form 4 to Form 5. There was a significant difference reported by school region ($z=-6.37, df= 2, p>.05$) with a moderate effect size (0.78). Kgatleng region teachers agreed more ($M=3.59$) than South East region teachers ($M=2.81$) that they knew and understood that for students with disabilities, transition planning began from Form 4 to Form 5.

Kgatleng and South East region teachers all agreed ($M=3.17$ - 3.67) that they knew that planning involved continuous assessment for BGCSE. There was a significant difference between school regions on this item ($z=-5.79, df= 2, p>.05$), with a moderate effect size (0.61). Kgatleng region teachers agreed more ($M=3.67$) than South East region teachers ($M=3.17$) that they knew that planning involved continuous assessment for BGCSE. Participants also tended to agree or agreed ($M=2.85$ - 3.75) that they knew that BGCSE instructional goals were linked to postsecondary education. Similarly, there was a significant difference between school regions on

this item ($z=-8.40$, $df= 2$, $p>.05$) with a large effect size (0.95). Kgatleng region teachers agreed more ($M=3.75$) than South East region teachers ($M=2.85$) that they knew that BGCSE instructional goals were linked to postsecondary education.

Participants tended to disagree or tended to agree ($M=2.32-2.87$) that they knew that BGCSE instructional goals for transitions were linked to technical and vocational education. School regions differed significantly ($z=-5.55$, $df= 2$, $p>.05$), with a moderate effect size (0.74). South East region teachers agreed more ($M=2.87$) than Kgatleng region teachers ($M=2.32$) that they knew that BGCSE instructional goals were linked to technical and vocational education. Moreover, participants disagreed, tended to disagree, or tended to agree ($M=1.34-2.86$) that they knew that BGCSE instructional goals were linked to postsecondary employment. There was a significant difference reported by school region ($z=-10.73$, $df= 2$, $p>.05$), with a moderate effect size (0.71). Kgatleng region teachers agreed less ($M=1.34$) than South East region teachers ($M=2.86$) that they had comprehensive knowledge that BGCSE instructional goals for transitions were linked to postsecondary employment.

Research Question 2

The second research question explored whether secondary and vocational teachers in Botswana were helping students with disabilities to transition successfully to postsecondary and/or employment environments. The question further investigated differences among secondary and vocational teachers between different school regions concerning transition preparation beliefs and perceptions for secondary and vocational school students with disabilities in Botswana.

Table 21

Mann Whitney U Analysis for Senior Secondary School Respondents' Transition Knowledge by School Region

	Kgatleng Region (n=114)			South East Region (n=144)					
<i>I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
The student transition planning process following completion of Form 5	114	3.60	0.94	110	2.48	1.00	2	-7.96	0.05
Planning begins from Form 4 to Form 5	114	3.59	0.90	114	2.81	1.09	2	-6.37	0.78
Planning involves continuous assessment for BGCSE	113	3.67	0.80	117	3.17	0.85	2	-5.79	0.61
BGCSE instructional goals are linked to postsecondary education	114	3.75	0.74	118	2.85	0.96	2	-8.40	0.95
BGCSE instructional goals are linked to technical and vocational education	111	2.32	0.65	129	2.87	0.81	2	-5.55	0.74
BGCSE instructional goals are linked to postsecondary employment	114	1.34	0.83	124	2.86	0.94	2	-10.73	0.71

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Participants' "Do Not Know" Responses on Current Transition Practices

Table 22 presents analysis by position for teacher-participants who chose "Do Not Know" as an answer to questions 35 through 49. Seventy-six (76) general education teachers

(8.7%) answered “Do Not Know” when asked whether the current JCE/BGCSE practices in their schools involved student participation in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, 84 general education teachers (9.6%) answered “Do Not Know.” Sixty-seven (67) general education teachers (7.7%) selected “Do Not Know” when asked whether the current transition practices in their schools only involved participation of school staff and parents in the planning process. Regarding participation of school staff, parents, and students in the transition planning process, 73 general education teachers (8.3%) answered “Do Not Know.” Furthermore, 80 general education teachers (9.1%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Eighty-two (82) general education teachers (9.4%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the transition planning process. Regarding whether academic subject instruction was related to postsecondary education, vocational education training, and/or employment, 88 general education teachers (10.1%) answered “Do Not Know.” Moreover, 91 general education teachers (10.4%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education, and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, 65 general education teachers (7.4%) answered “Do Not Know.” Additionally, 61 general education teachers (9.1%) responded “Do Not Know” when asked whether the current transition practices involved junior secondary supports related to successful transition outcomes. Twenty-one (21) general education teachers (9.9%) responded “Do Not Know” when asked whether the current transition practices involved senior secondary

supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provision, 100 general education teachers (11.4%) answered “Do Not Know.”

Three (3) special education teachers (3.8%) answered “Do Not Know” when asked whether the current JCE/BGCSE practices in their schools involved participation of students in the transition planning process. When asked whether the current practices in their schools involved participation of school staff only in the planning process, one special education teacher (1.3%) answered “Do Not Know.” Three (3) special education teachers (3.8%) selected “Do Not Know” when asked whether the current transition practices in their schools only involved participation of school staff and parents in the transition planning process. Regarding participation of school staff, parents, and students in the transition planning process, two special education teachers (2.5%) answered “Do Not Know.” Further, six special education teachers (7.5%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Three (3) special education teachers (3.8%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process. Regarding whether academic subject instruction was related to postsecondary education, vocational education training, and/or employment, 11 special education teachers (13.8%) answered “Do Not Know.” Moreover, eight special education teachers (10.0%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education, and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, four special education teachers (5.0%) answered “Do Not Know.” Again, four special education

teachers (5.0%) responded “Do Not Know” when asked whether the current transition practices involved junior secondary supports related to successful transition outcomes. One (1) special education teacher (4.3%) responded “Do Not Know” when asked whether the current transition practices involved senior secondary supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provision, five special education teachers (6.3%) answered “Do Not Know.”

One (1) guidance and counseling teacher (1.4%) answered “Do Not Know” when asked whether the current JCE/BGCSE practices in their schools involved participation of students in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, no guidance and counseling teacher (0.0%) answered “Do Not Know.” One (1) guidance and counseling teacher (1.4%) selected “Do Not Know” when asked whether the current transition practices in their schools only involved participation of school staff and parents in the planning process. Regarding participation of school staff, parents, and students in the transition planning process, one guidance and counseling teacher (1.4%) answered “Do Not Know.” Once more, one guidance and counseling teacher (1.4%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. One (1) guidance and counseling teacher (1.4%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process. Regarding whether academic subject instruction was related to postsecondary education, vocational education training, and/or employment, two guidance and counseling teachers (2.7%) answered “Do Not Know.” Furthermore, three guidance and counseling teachers (4.1%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject

instruction related to postsecondary education, vocational education, and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, one guidance and counseling teacher (1.4%) answered “Do Not Know.” Once more, one guidance and counseling teacher (1.4%) responded “Do Not Know” when asked whether the current transition practices involved junior secondary supports related to successful transition outcomes. No guidance and counseling teacher (0.0%) responded “Do Not Know” when asked whether the current transition practices involved senior secondary supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provisions, two guidance and counseling teachers (2.7%) answered “Do Not Know.”

Nineteen (19) vocational teachers (12.0%) answered “Do Not Know” when asked whether the current vocational practices in their schools involved participation of students in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, 15 vocational teachers (9.5%) answered “Do Not Know.” Twenty-three (23) vocational teachers (14.6%) selected “Do Not Know” when asked whether the current transition practices in their schools only involved participation of school staff and parents in the planning process. Regarding participation of school staff, parents, and students in the transition planning process, 21 vocational teachers (13.3%) answered “Do Not Know.” Furthermore, 29 vocational teachers (18.4%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Twenty-five (25) vocational teachers (15.8%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process. Regarding whether academic subject instruction was related to higher

education and/or employment, 12 vocational teachers (7.6%) answered “Do Not Know.” Additionally, 12 vocational teachers (7.6%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to higher education and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, 13 vocational teachers (8.2%) answered “Do Not Know.” Furthermore, 11 vocational teachers (7.0%) responded “Do Not Know” when asked whether the current transition practices involved vocational supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provision, 20 vocational teachers (12.7%) answered “Do Not Know.”

Overall, the results showed that “Do Not Know” percentages by teacher position did not meet or exceed the 25% benchmark that indicates a need for further professional training. The findings indicate that participants understood transition practices and principles for students with disabilities in Botswana, and did not require additional professional training and awareness.

Table 23 presents data on “Do Not Know” responses to current transition perceptions for participants by school type. Fifty-four (54) junior secondary teachers (7.0%) answered “Do Not Know” when asked whether the current JCE practices in their schools involved student participation in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, 57 junior secondary teachers (7.4%) answered “Do Not Know.” Forty-nine (49) junior secondary teachers (6.4%) selected “Do Not Know” when asked whether the current transition practices in their schools only involved participation of school staff and parents in the planning process. Regarding participation of school staff, parents, and students in the transition planning process, 58 junior

Table 22

*Percentages of “Do Not Know” Responses for Perceptions About Current Transition Practices
by Teacher Position*

	General Education Teacher (<i>n</i> =875)		Special Education Teacher (<i>n</i> =80)		Guidance and Counseling Teacher (<i>n</i> =73)		Vocational Teacher (<i>n</i> =158)		Total (<i>N</i> =1186)	
<i>The current JCE/BGCSE/Vocational practices in my school involve:</i>	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Participation of students in the transition planning process	76	8.7	3	3.8	1	1.4	19	12.0	99	8.3
Participation of school staff only in the planning process	84	9.6	1	1.3	0	0.0	15	9.5	100	8.4
Participation of school staff and parents only in the planning process	67	7.7	3	3.8	1	1.4	23	14.6	94	7.9
Participation of school staff, parents, and students	73	8.3	2	2.5	1	1.4	21	13.3	97	8.2
Participation of school staff and other agencies only	80	9.1	6	7.5	1	1.4	29	18.4	116	9.8
Participation of school staff, students, parents, and agencies	82	9.4	3	3.8	1	1.4	25	15.8	111	9.4
Academic subject instruction related to postsecondary education, vocational education training, and/or employment or higher education and/or employment	88	10.1	11	13.8	2	2.7	12	7.6	113	9.5
Functional subject instruction related to postsecondary education, vocational education training, and/or employment or higher education and/or employment	91	10.4	8	10.0	3	4.1	12	7.6	114	9.6
Core and optional subjects that promote successful post-school outcomes	65	7.4	4	5.0	1	1.4	13	8.2	83	7.0
Junior/senior secondary/vocational supports related to successful transition outcomes	82	9.4	5	6.3	1	1.4	11	7.0	99	8.3
Inclusive education supports related to transition services provision	100	11.4	5	6.3	2	2.7	20	12.7	127	10.7

Note. Percentages represent data reported by category and totals.

secondary teachers (7.5%) answered “Do Not Know.” Additionally, 65 junior secondary teachers (8.4%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Sixty-six (66) junior secondary teachers (8.6%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process for transitions. Regarding whether academic subject instruction was related to postsecondary education, vocational education training, and/or employment, 68 junior secondary teachers (8.8%) answered “Do Not Know.” Moreover, 72 junior secondary teachers (9.4%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education, and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, 48 junior secondary teachers (6.2%) answered “Do Not Know.” Once more, 66 junior secondary teachers (8.6%) responded “Do Not Know” when asked whether the current transition practices involved junior secondary supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provision, 80 junior secondary teachers (10.4%) answered “Do Not Know.”

Twenty-six (26) senior secondary teachers (10.1%) answered “Do Not Know” when asked whether the current BGCSE practices in their schools involved student participation in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, 28 senior secondary teachers (10.9%) answered “Do Not Know.” Twenty-two (22) senior secondary teachers (8.5%) selected “Do Not Know” when asked whether the current transition practices in their schools only involved participation of school staff and parents in the planning process. Regarding

participation of school staff, parents, and students in the transition planning process, 18 senior secondary teachers (7.0%) answered “Do Not Know.” Once more, 22 senior secondary teachers (8.5%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Twenty (20) senior secondary teachers (7.8%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process. Regarding whether academic subject instruction was related to postsecondary education, vocational education training, and/or employment, 32 senior secondary teachers (12.8%) answered “Do Not Know.” Moreover, 30 senior secondary teachers (11.6%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education, and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, 22 senior secondary teachers (8.5%) answered “Do Not Know.” Again, 22 senior secondary teachers (8.5%) responded “Do Not Know” when asked whether the current transition practices involved senior secondary supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provision, 27 senior secondary teachers (10.5%) answered “Do Not Know.”

Nineteen (19) vocational school teachers (12.0%) answered “Do Not Know” when asked whether the current vocational practices in their schools involved participation of students in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, 15 vocational school teachers (9.5%) answered “Do Not Know.” Twenty-three (23) vocational school teachers (14.6%) selected “Do Not Know” when asked whether the current transition practices in their schools

Table 23

Percentages of “Do Not Know” Responses of Perceptions About Current Transition Practices by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Vocational School (n=158)		Total (N=1186)	
<i>The current JCE/BGCSE/Vocational practices in my school involve:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Participation of students in the transition planning process	54	7.0	26	10.1	19	12.0	99	8.3
Participation of school staff only in the planning process	57	7.4	28	10.9	15	9.5	100	8.4
Participation of school staff and parents only in the planning process	49	6.4	22	8.5	23	14.6	94	7.9
Participation of school staff, parents, and students	58	7.5	18	7.0	21	13.3	97	8.2
Participation of school staff and other agencies only	65	8.4	22	8.5	29	18.4	116	9.8
Participation of school staff, students, parents, and agencies	66	8.6	20	7.8	25	15.8	111	9.4
Academic subject instruction related to postsecondary education, vocational education training, and/or employment or higher education and/or employment	68	8.8	32	12.8	12	7.6	113	9.5
Functional subject instruction related to postsecondary education, vocational education training, and/or employment or higher education and/or	72	9.4	30	11.6	12	7.6	114	9.6

Table 23 *continued*

Percentages of “Do Not Know” Responses of Perceptions About Current Transition Practices by School Type

	Junior Secondary School (<i>n</i> =770)		Senior Secondary School (<i>n</i> =258)		Vocational School (<i>n</i> =158)		Total (<i>N</i> =1186)	
<i>The current JCE/BGCSE/Vocational practices in my school involve:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
employment								
Core and optional subjects that promote successful post-school outcomes	48	6.2	22	8.5	13	8.2	83	7.0
Junior/senior secondary/vocational supports related to successful transition outcomes	66	8.6	22	8.5	11	7.0	99	8.3
Inclusive education supports related to transition services provision	80	10.4	27	10.5	20	12.7	127	10.7

Note. Percentages represent data reported by category and totals.

only involved participation of school staff and parents in the planning process. Regarding participation of school staff, parents, and students in the transition planning process, 21 vocational school teachers (13.3%) answered “Do Not Know.” Furthermore, 29 vocational school teachers (18.4%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Twenty-five (25) vocational school teachers (15.8%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process. Regarding the perceptions of participants concerning current transition planning and practices as to whether

academic subject instruction was related to higher education and/or employment, 12 vocational school teachers (7.6%) answered “Do Not Know.” Moreover, 12 vocational school teachers (7.6%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to higher education and/or employment. When asked whether current practices involved core and optional subjects that promoted successful post-school outcomes, 13 vocational school teachers (8.2%) answered “Do Not Know.” Additionally, 11 vocational school teachers (7.0%) responded “Do Not Know” when asked whether the current transition practices involved vocational supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provision, 20 vocational school teachers (12.7%) answered “Do Not Know.”

Overall, “Do Not Know” response percentages sorted by the type of school in which participants worked did not meet or exceed the 25% cut-off that would demonstrate additional training and awareness needs. The “Do Not Know” percentages ranged from 6.2% to 18.4%. The findings indicate that participants understood transition practices and principles for students with disabilities in Botswana.

Table 24 includes the “Do Not Know” responses to current transition perceptions for participants by school region. Twenty-six (26) Kgatleng region teachers (5.5%) answered “Do Not Know” when asked whether the current JCE/BGCSE/vocational practices in their schools involved student participation in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, 24 Kgatleng region teachers (5.1%) answered “Do Not Know.” Twenty-four (24) Kgatleng region teachers (5.1%) selected “Do Not Know” when asked whether the current transition practices in

their schools only involved participation of school staff and parents in the planning process. Once more, 24 Kgatleng region teachers (5.1%) answered “Do Not Know” regarding participation of school staff, parents, and students in the transition planning process. Additionally, 30 Kgatleng region teachers (6.3%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Twenty-eight (28) Kgatleng region teachers (5.9%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process. Regarding whether academic subject instruction was related to postsecondary education, vocational education training, and/or employment, 16 Kgatleng region teachers (3.9%) answered “Do Not Know.” Moreover, 17 Kgatleng region teachers (4.2%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education, and/or employment. Seven (7) Kgatleng region teachers (10.4%) answered “Do Not Know” concerning whether current transition practices in their schools involved academic subject instruction related to higher education and/or employment. Furthermore, five Kgatleng region teachers (7.5%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to higher education and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, 23 Kgatleng region teachers (4.9%) answered “Do Not Know.” Further, 18 Kgatleng region teachers (6.1%) responded “Do Not Know” when asked whether the current transition practices involved junior secondary supports related to successful transition outcomes. No Kgatleng region teacher (0.0%) responded “Do Not Know” when asked whether the current transition practices involved senior secondary supports related to successful transition outcomes. Six (6) Kgatleng

Table 24

Percentages of “Do Not Know” Responses of Perceptions About Current Transition Practices by School Region

	Kgatleg Region (<i>n</i> =474)		South East Region (<i>n</i> =712)		Total (<i>N</i> =1186)	
<i>The current JCE/BGCSE/Vocational practices in my school involve:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Participation of students in the transition planning process	26	5.5	73	10.3	99	8.3
Participation of school staff only in the planning process	24	5.1	76	10.7	100	8.4
Participation of school staff and parents only in the planning process	24	5.1	70	9.8	94	7.9
Participation of school staff, parents, and students	24	5.1	73	10.3	97	8.2
Participation of school staff and other agencies only	30	6.3	86	12.1	116	9.8
Participation of school staff, students, parents, and agencies	28	5.9	83	11.7	111	9.4
Academic subject instruction related to postsecondary education, vocational education training, and/or employment or higher education and/or employment	23	4.9	90	12.6	113	9.5
Functional subject instruction related to postsecondary education, vocational education training, and/or employment or higher education and/or employment	22	4.6	92	12.9	114	9.6
Core and optional subjects that promote successful post-school outcomes	23	4.9	60	8.4	83	7.0

Table 24 *continued*

Percentages of “Do Not Know” Responses of Perceptions About Current Transition Practices by School Region

	Kgatlang Region (<i>n</i> =474)		South East Region (<i>n</i> =712)		Total (<i>N</i> =1186)	
<i>The current JCE/BGCSE/Vocational practices in my school involve:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Junior/senior secondary/vocational supports related to successful post-school outcomes	24	5.1	75	10.5	99	8.3
Inclusive education supports related to transition services provision	27	5.7	100	14.0	127	10.7

Note. Percentages represent data reported by category and totals.

region teachers (9.0%) responded “Do Not Know” when asked whether the current transition practices involved vocational supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education supports related to transition services provision, 27 Kgatleng region teachers (5.9%) answered “Do Not Know.”

Seventy-three (73) South East region teachers (10.3%) answered “Do Not Know” when asked whether the current JCE/BGCSE/vocational practices in their schools involved participation of students in the transition planning process. When asked whether the current practices in their schools only involved participation of school staff in the planning process, 76 South East region teachers (10.7%) answered “Do Not Know.” Seventy (70) South East region teachers (9.8%) selected “Do Not Know” when asked whether the current transition practices in their schools only involved participation of school staff and parents in the planning process. Regarding participation of school staff, parents, and students in the transition planning process, 73 South East region teachers (10.3%) answered “Do Not Know.” Additionally, 86 South East

region teachers (12.1%) answered “Do Not Know” concerning whether current transition practices in their schools only involved participation of school staff and other agencies. Eighty-three (83) South East region teachers (11.7%) selected “Do Not Know” concerning participation of school staff, students, parents, and agencies in the planning process. Regarding whether academic subject instructions were related to postsecondary education, vocational education training, and/or employment, 85 South East region teachers (13.7%) answered “Do Not Know.” Moreover, 85 South East region teachers (13.7%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education, and/or employment. Five (5) South East region teachers (5.5%) answered “Do Not Know” concerning whether current transition practices in their schools involved academic subject instruction related to higher education and/or employment. Also, seven South East region teachers (7.7%) answered “Do Not Know” concerning whether current transition practices in their schools involved functional subject instruction related to higher education and/or employment. When asked whether current practices involved core and optional subjects that promote successful post-school outcomes, 60 South East region teachers (8.4%) answered “Do Not Know.” Further, 48 South East region teachers (10.1%) responded “Do Not Know” when asked whether the current transition practices involved junior secondary supports related to successful transition outcomes. Twenty-two (22) South East region teachers (15.3%) responded “Do Not Know” when asked whether the current transition practices involved senior secondary supports related to successful transition outcomes. Five (5) South East region teachers (5.5%) responded “Do Not Know” when asked whether the current transition practices involved vocational supports related to successful transition outcomes. When asked whether current transition practices involved inclusive education

supports related to transition services provision, 100 South East region teachers (14.0%) answered “Do Not Know.”

Altogether, there was no group of “Do Not Know” responses by school region that met or exceeded the 25% cut-off point that would indicate a need for additional training and awareness. The “Do Not Know” responses ranged from 0.0% to 15.3%. The findings support the conclusion that participants understood transition practices and principles for students with disabilities in Botswana.

Participants’ Differences on Current Transition Practices

Overall, participants in this study had different agreement levels concerning current transition practices in their schools. Participants in this study tended to disagree that the current practices in their schools involved participation of students only in the transition planning process ($M=2.49$). Furthermore, participants also tended to disagree that transition practices in their schools involved participation of only school staff in the planning process ($M=2.32$). Additionally, participants tended to disagree with the statement that transition practices in their schools only involved participation of school staff and parents in the planning process ($M=2.47$). However, participants in this study tended to agree that transition practices in their schools involved participation of school staff, parents, and students ($M=2.97$). Concerning whether current practices only involved participation of school staff and other agencies, participants tended to disagree with the statement ($M=2.24$). Participants tended to agree that current transition practices involved participation of school staff, students, parents, and agencies ($M=2.98$). Regarding whether current practices involved core and optional subjects that promoted successful post-school outcomes, participants agreed that they did ($M=3.17$). Further, participants agreed that transition practices involved inclusive education supports related to

transition services provisions ($M=3.05$). Table 25 presents Kruskal-Wallis test results, by teacher position, conducted on responses to questions 35 to 40, 43, and 45 (secondary schools) and questions 39 to 44, 47, and 49 (vocational schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. General education teachers, special education teachers, guidance and counseling teachers, and vocational teachers tended to disagree or tended to agree ($M=2.44-2.58$) with a statement that their schools involved students in the transition planning process. There was no significant difference reported by teacher position ($\chi^2= 1.38, df=3, p>.05$). Participants also tended to disagree or tended to agree ($M=2.19-2.79$) with a statement that transition practices in their schools only involved participation of school staff in the planning process. There was a significant difference reported by teacher position ($\chi^2= 53.36, df=3, p<.05$), with a small effect size (0.22). A Mann Whitney *U* test run as a follow-up to compare position groups supported significant differences between general education and guidance and counseling teachers, general education, and vocational teachers, and between special education and guidance and counseling teachers. Additionally, special education and vocational teachers differed significantly. Guidance and counseling teachers indicated higher agreement ($M=2.79$) than general education teachers ($M=2.22$) that current practices only involved participation of school staff in the planning process ($z=-5.29, p<.01$). Vocational teachers ($M=2.70$) also expressed higher agreement than general education teachers ($M=2.22$) on this item ($z=-5.53, p<.01$). Guidance and counseling teachers indicated higher agreement ($M=2.79$) than special education teachers ($M=2.19$) on this item ($z=-4.02, p<.01$). Additionally, vocational teachers indicated higher agreement ($M=2.70$) than special education teachers ($M=2.19$) on the same item ($z=-3.68, p<.01$).

Participants tended to disagree or tended to agree ($M=2.27-2.86$) with a statement that transition practices in their schools only involved participation of school staff and parents in the planning process. There was a significant difference reported by teacher position ($\chi^2= 14.12$, $df=3$, $p<.05$), with a small effect size (0.11). Results from a Mann Whitney U post hoc test supported the conclusion that guidance and counseling teachers were significantly different from general, special, and vocational teachers. General education teachers agreed less ($M=2.47$) than guidance and counseling teachers ($M=2.86$) that transition practices in their schools involved participation of school staff and parents only in the planning process ($z=-3.03$, $p<.01$). Special education teachers ($M=2.47$) expressed agreed less than guidance and counseling teachers ($M=2.86$) on this item ($z=-2.26$, $p<.01$). Furthermore, vocational teachers ($M=2.27$) also showed less agreement than guidance and counseling teachers ($M=2.86$) on the same item ($z=-3.68$, $p<.01$). Regarding the perception that transition practices in schools involved participation of school staff, parents, and students, participants tended to disagree, tended to agree, or agreed ($M=2.49-3.05$). Position groups differed significantly in responses to this statement ($\chi^2= 30.06$, $df=3$, $p<.05$), with a small effect size (0.17). Results from a Mann Whitney U post hoc test supported that vocational teachers differed significantly from general, special education, and guidance and counseling teachers. General education teachers agreed more ($M=3.05$) than vocational teachers ($M=2.49$) that transition practices in their schools involved school staff, parents, and students in the planning process ($z=-5.41$, $p<.01$). Additionally, special education teachers ($M=2.90$) showed more agreement than vocational teachers ($M=2.49$) on this item ($z=-2.50$, $p<.05$). Furthermore, guidance and counseling teachers ($M=3.00$) showed more agreement than vocational teachers ($M=2.49$) on the same item ($z=-3.02$, $p<.01$).

Participants also tended to disagree ($M=2.18-2.49$) that current transition practices only involved participation of school staff and other agencies. Position groups differed significantly in responses to this statement ($\chi^2= 15.69$, $df=3$, $p<.05$), with a small effect size (0.12). Results from a Mann Whitney U post hoc test supported the conclusion that general education teachers were significantly different from special education, guidance and counseling, and vocational teachers. General education teachers agreed less ($M=2.18$) than special education teachers ($M=2.43$) that transition practices in their schools involved participation of school staff and other agencies only ($z=-2.34$, $p<.05$). General education teachers ($M=2.18$) showed less agreement than guidance and counseling teachers ($M=2.49$) on this item ($z=-2.70$, $p<.01$). Additionally, general education teachers ($M=2.18$) showed less agreement than vocational teachers ($M=2.40$) on the same item ($z=-2.49$, $p<.05$). In addition, participants tended to disagree, tended to agree, or agreed ($M=2.44-3.10$) that current transition practices involved participation of school staff, students, parents, and other agencies. Position group responses differed significantly in responses to this item ($\chi^2= 57.24$, $df= 3$, $p>.05$), with a small effect size (0.23). Results from a Mann Whitney U post hoc test supported the conclusion that general education teachers' responses differed significantly from special education and vocational teachers. Guidance and counseling teachers also differed significantly from special education and vocational teachers. General education teachers agreed more ($M=3.10$) than special education teachers ($M=2.66$) that transition practices in their schools involved participation of school staff, students, parents, and other agencies ($z=-3.54$, $p<.01$). General education teachers ($M=3.10$) agreed more than vocational teachers ($M=2.44$) on this item ($z=-7.05$, $p<.01$). Also, guidance and counseling teachers ($M=3.06$) agreed more than special education teachers ($M=2.66$) that transition practices in their schools involved participation of school staff, students, parents, and other agencies ($z=-2.28$, $p<.05$). Moreover,

Table 25

Kruskal-Wallis Analysis for Respondents' Perceptions About Current Transition Practices by Teacher Position

<i>The current JCE/BGCSE/Voc practices in my school involve:</i>	General Education Teacher (n=875)			Special Education Teacher (n=80)			Guidance and Counseling Teacher (n=73)			Vocational Teacher (N=158)			<i>df</i>	χ^2	<i>w</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
Participation of students in the transition planning process	799	2.47	0.99	77	2.52	1.00	72	2.44	0.90	139	2.58	1.12	3	1.38	0.04
Participation of school staff only in the planning process	791	2.22	0.94	79	2.19	0.95	73	2.79	0.94	143	2.70	0.99	3	53.36	0.22
Participation of school staff and parents only in the planning process	808	2.47	0.94	77	2.47	0.94	72	2.86	1.12	135	2.27	1.01	3	14.12	0.11
Participation of school staff, parents, and students	802	3.05	1.08	78	2.90	1.05	72	3.00	1.08	137	2.49	1.18	3	30.06	0.17
Participation of school staff and other agencies only	795	2.18	0.91	74	2.43	0.95	72	2.49	0.95	129	2.40	0.98	3	15.69	0.12
Participation of school staff, students, parents, and agencies	793	3.10	1.06	77	2.66	1.07	72	3.06	1.10	133	2.44	1.00	3	57.24	0.23
Core and optional subjects that promote successful post-school outcomes	810	3.20	0.97	76	3.11	0.79	72	3.22	1.00	145	2.99	0.83	3	15.15	0.12
Inclusive education supports related to transition services provision	775	3.10	1.05	75	2.96	0.98	71	2.89	0.90	138	2.94	0.84	3	12.05	0.11

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

guidance and counseling teachers' responses ($M=3.06$) showed more agreement than vocational teachers ($M=2.44$) on the same item ($z=-4.21, p<.01$).

Participants tended to agree that current practices at their schools involved core and optional subjects that promoted successful post-school outcomes ($M=2.99-3.22$). There was a significant difference between position groups on this item ($\chi^2= 15.15, df=3, p<.05$), with a small effect size (0.12). Results from a Mann Whitney U post hoc test supported that vocational teachers were significantly different from general education teachers and from guidance and counseling teachers. Vocational teachers agreed less ($M=2.99$) than general education teachers ($M=3.20$) that current practices involved core and optional subjects that promoted successful post-school outcomes ($z=-3.59, p<.01$). Vocational teachers ($M=2.99$) also showed less agreement than guidance and counseling teachers ($M=3.22$) on this item ($z=-2.49, p<.05$). Once more, participants tended to agree or agreed ($M=2.89-3.10$) that transition practices involved inclusive education supports related to transition services provision. Position group responses differed significantly for this item ($\chi^2= 12.05, df=3, p>.05$), with a small effect size (0.11). Results from a Mann Whitney U post hoc test supported the conclusion that general education teachers' responses differed significantly from guidance and counseling teachers and vocational teachers. General education teachers agreed more ($M=3.10$) than guidance and counseling teachers ($M=2.89$) that current transition practices involved inclusive education supports related to transition services provision ($z=-2.33, p<.05$). General education teachers ($M=3.10$) also demonstrated more agreement than vocational teachers ($M=2.94$) on this item ($z=-2.70, p<.01$).

Table 26 displays results from Kruskal-Wallis tests, performed by school type, on questions 35 to 40, 43, and 45 (secondary schools) and questions 39 to 44, 47, and 49 (vocational schools) to determine statistical differences in participants' perceptions of current transition

practices in their schools. Junior secondary teachers, senior secondary teachers, and vocational school teachers tended to disagree or tended to agree ($M=2.01-2.62$) that the current practices in their schools involved participation of students in the transition planning process. Responses differed significantly by teacher position ($\chi^2= 61.61$, $df= 2$, $p>.05$), with a small effect size (0.24). Results from a Mann Whitney U test supported significant differences between school types. Senior secondary teachers were significantly different from junior secondary teachers and vocational school teachers in responses. Senior secondary teachers showed less agreement ($M=2.01$) than junior secondary teachers ($M=2.62$) that current practices involved participation of students in the planning process ($z=-7.89$, $p<.01$). Senior secondary teachers ($M=2.01$) also showed less agreement than vocational school teachers ($M=2.58$) on this item ($z=-4.70$, $p<.01$). Participants disagreed, tended to disagree, or tended to agree ($M=1.93-2.70$) that transition practices in their schools only involved participation of school staff in the planning process. Responses by school type differed significantly ($\chi^2= 65.48$, $df=2$, $p<.05$), with a small effect size (0.25). Results from a Mann Whitney U post hoc test comparing types of schools supported the conclusion that the teachers at junior secondary, senior secondary, and vocational school teachers differed significantly from each other in their beliefs on this topic. Senior secondary teachers showed less agreement ($M=1.93$) than junior secondary teachers ($M=2.37$) that current practices only involved participation of school staff in the planning process ($z=-6.58$, $p<.01$). Junior secondary teachers ($M=2.37$) also showed less agreement than vocational school teachers ($M=2.70$) on this item ($z=-4.05$, $p<.01$). Senior secondary teachers agreed less than ($M=1.93$) than vocational teachers ($M=2.70$) on this item ($z=-6.77$, $p<.01$).

Participants tended to disagree, tended to agree, or agreed ($M=2.27-3.09$) that transition practices in their schools only involved participation of school staff and parents in the planning

process. Responses differed significantly by school type ($\chi^2=124.46$, $df=2$, $p<.05$), with a small effect size (0.34). Results from a Mann Whitney U post hoc test supported the conclusion that senior secondary teachers differ significantly from junior secondary and vocational school teachers in their responses. Junior secondary teachers agreed less ($M=2.30$) than senior secondary teachers ($M=3.09$) that transition practices in their schools only involved participation of school staff and parents in the planning process ($z=-11.10$, $p<.01$). Vocational school teachers' responses ($M=2.27$) showed less agreement than senior secondary teachers' responses ($M=3.09$) on this item ($z=-7.27$, $p<.01$). Regarding the perception that transition practices in schools involved participation of school staff, parents, and students, participants tended to disagree, tended to agree, or agreed ($M=2.49-3.13$). Participants' responses differed significantly by school type on this item ($\chi^2=29.83$, $df=2$, $p<.05$), with a small effect size (0.17). Results from a Mann Whitney U post hoc test supported the conclusion that vocational school teachers differed significantly from junior and senior secondary teachers. Junior secondary teachers agreed more ($M=3.00$) than vocational school teachers ($M=2.49$) that transition practices in their schools involved participation of school staff, parents, and students in the planning process ($z=-4.89$, $p<.01$). Senior secondary teachers ($M=3.13$) also showed more agreement than vocational teachers ($M=2.49$) on this item ($z=-5.23$, $p<.01$).

Participants also tended to disagree ($M=2.12-2.40$) with the statement that transition practices only involved participation of school staff and other agencies. Responses differed significantly by school type on this item ($\chi^2=8.73$, $df=2$, $p<.05$). Results from a Mann Whitney U post hoc test supported the conclusion that senior secondary teachers differed significantly from junior secondary and vocational school teachers. Senior secondary teachers agreed less ($M=2.12$) than junior secondary teachers ($M=2.26$) that transition practices in their schools only

involved participation of school staff and other agencies ($z=-2.23, p<.05$). Senior secondary teachers' responses ($M=2.12$) showed less agreement than vocational school teachers' responses ($M=2.40$) on this item ($z=-2.54, p<.05$). In addition, participants tended to disagree, tended to agree, or agreed ($M=2.44-3.22$) that current transition practices involved participation of school staff, students, parents, and agencies. Participants' responses differed significantly by school type on this item ($\chi^2= 49.02, df=2, p<.05$), with a small effect size (0.21). Results from a Mann Whitney *U* post hoc test supported the conclusion that vocational school teachers differed significantly from junior and senior secondary teachers. Junior secondary teachers agreed more ($M=3.01$) than vocational school teachers ($M=2.44$) that transition practices in their schools involved participation of school staff, students, parents, and other agencies ($z=-5.92, p<.01$). Senior secondary teachers ($M=3.22$) also showed more agreement than vocational school teachers ($M=2.44$) on this item ($z=-7.23, p<.01$).

Participants agreed ($M=2.99-3.31$) that current practices in their schools involved core and optional subjects that promoted successful post-school outcomes. Participants' responses differed significantly by school type on this item ($\chi^2= 14.58, df=2, p<.05$), with a small effect size (0.11). Results from a Mann Whitney *U* post hoc test supported the conclusion that vocational school teachers differed significantly from junior and senior secondary teachers. Junior secondary teachers agreed more ($M=3.16$) than vocational school teachers ($M=2.99$) that current practices involved core and optional subjects that promoted successful post-school outcomes ($z=-2.95, p<.01$). Senior secondary teachers' responses ($M=3.31$) also showed more agreement than vocational school teachers' responses ($M=2.99$) on this item ($z=-4.18, p<.01$). Additionally, secondary and vocational school participants in this study tended to agree or agreed ($M=2.94-3.28$) that transition practices involved inclusive education supports related to transition

Table 26

Kruskal-Wallis Analysis for Respondents' Perceptions About Current Transition Practices by

School Type

	Junior Secondary School (n=770)			Senior Secondary School (n=258)			Vocational School (n=158)					
<i>The current JCE/BGCSE/Voc practices in my school involve:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Participation of students in the transition planning process	716	2.62	0.91	232	2.01	1.06	139	2.58	1.12	2	61.61	0.24
Participation of school staff only in the planning process	713	2.37	0.89	230	1.93	1.05	143	2.70	0.99	2	65.48	0.25
Participation of school staff and parents only in the planning process	721	2.30	0.88	236	3.09	0.95	135	2.27	1.01	2	124.46	0.34
Participation of school staff, parents, and students	712	3.00	1.10	240	3.13	0.99	137	2.49	1.18	2	29.83	0.17
Participation of school staff and other agencies only	705	2.26	0.86	236	2.12	1.08	129	2.40	0.98	2	8.73	0.09
Participation of school staff, students, parents,	704	3.01	1.11	238	3.22	0.92	133	2.44	1.00	2	49.02	0.21

Table 26 *continued*

Kruskal-Wallis Analysis for Respondents' Perceptions About Current Transition Practices by School Type

	Junior Secondary School (<i>n</i> =770)			Senior Secondary School (<i>n</i> =258)			Vocational School (<i>n</i> =158)					
<i>The current JCE/BGCSE/Voc practices in my school involve: and agencies</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Core and optional subjects that promote successful post- school outcomes	722	3.16	0.99	236	3.31	0.85	145	2.99	0.83	2	14.58	0.11
Inclusive education supports related to transition services provision	690	3.00	1.03	231	3.28	1.02	138	2.94	0.84	2	20.85	0.14

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

services provisions. Teachers' responses differed significantly by school type on this item ($\chi^2 = 20.85$, $df = 2$, $p < .05$), with a small effect size (0.14). Results from a Mann Whitney *U* post hoc test supported the conclusion that senior secondary teachers differed significantly from junior secondary and vocational school teachers. Senior secondary teachers agreed more ($M = 3.28$) than junior secondary teachers ($M = 3.00$) that current transition practices involved inclusive education supports related to transition services provision ($z = -3.83$, $p < .01$). Senior secondary teachers ($M = 3.28$) also showed more agreement than vocational school teachers ($M = 2.94$) on this item ($z = -4.60$, $p < .01$).

Table 27 presents results from Mann Whitney *U* tests, by school region, conducted on responses to questions 35 to 40, 43, and 45 (secondary schools) and questions 39 to 44, 47, and 49 (vocational schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. Kgatleng region and South East region teachers tended to disagree or tended to agree ($M=2.20-2.69$) that the current practices in their schools involved participation of students in the transition planning process. School regions differed significantly ($z=-7.58$, $df=2$, $p<.05$), with a moderate effect size (0.50). Kgatleng region teachers showed less agreement ($M=2.20$) than South East region teachers ($M=2.69$) that current practices involved participation of students in the planning process. Participants tended to disagree or tended to agree ($M=2.02-2.53$) that transition practices in their schools only involved participation of school staff in the planning process. Teachers' responses differed significantly by school region ($z=-8.64$, $df=2$, $p<.05$), with a moderate effect size (0.55). Kgatleng region teachers showed less agreement ($M=2.02$) than South East region teachers ($M=2.53$) that current practices only involved participation of school staff in the planning process.

Participants tended to disagree ($M=2.46-2.48$) that transition practices in their schools involved participation of school staff and parents in the planning process. Responses did not differ significantly by school region ($z=-.29$, $df=2$, $p<.05$) on this item. All participants agreed ($M=3.11-3.86$) that transition practices in schools involved participation of school staff, parents, and students. Participants' responses differed significantly by school region on this item ($z=-4.38$, $df=2$, $p<.05$), with a small effect size (0.23) noted. South East region teachers agreed more ($M=3.86$) than Kgatleng region teachers ($M=3.11$) that transition practices in their schools involved participation of school staff, parents, and students in the planning process. Participants also disagreed or tended to disagree ($M=1.99-2.42$) with the question that current transition

Table 27

Mann Whitney U Analysis for Respondents' Perceptions About Current Transition Practices by School Region

<i>The current JCE/BGCSE/Voc practices in my school involve:</i>	Kgatleng Region (n=474)			South East Region (n=712)			<i>df</i>	<i>z</i>	<i>d</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
Participation of students in the transition planning process	448	2.20	0.99	639	2.69	0.96	2	-7.58	0.50
Participation of school staff only in the planning process	450	2.02	0.91	636	2.53	0.95	2	-8.64	0.55
Participation of school staff and parents only in the planning process	450	2.48	1.04	642	2.46	0.91	2	-0.29	0.02
Participation of school staff, parents, and students	450	3.11	1.15	639	2.86	1.06	2	-4.38	0.23
Participation of school staff and other agencies only	444	1.99	0.88	626	2.42	0.93	2	-7.47	0.47
Participation of school staff, students, parents, and agencies	446	3.12	1.12	629	2.88	1.04	2	-4.40	0.22
Core and optional subjects that promote successful post-school outcomes	451	3.33	0.94	652	3.06	0.93	2	-5.52	0.29
Inclusive education supports related to transition services provision	447	3.29	0.97	612	2.88	1.01	2	-7.05	0.41

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

practices only involved participation of school staff and other agencies. Responses differed significantly by school region on this item ($z=-7.47$, $df=2$, $p<.05$), with a small effect size (0.47). Kgatleng region teachers agreed less ($M=1.99$) than South East region teachers ($M=2.42$) that transition practices in their schools only involved participation of school staff and other agencies. In addition, participants tended to disagree, tended to agree, or agreed ($M=2.88-3.12$) that current transition practices involved participation of school staff, students, parents, and agencies. Respondents' answers differed significantly by school region ($z=-4.40$, $df=2$, $p<.05$), with a small effect size (0.22) noted. Kgatleng region teachers agreed more ($M=3.12$) than South East region teachers ($M=2.88$) that transition practices in their schools involved participation of school staff, students, parents, and other agencies.

All participant school types agreed ($M=3.06-3.33$) that current practices involved core and optional subjects that promoted successful post-school outcomes. Results differed significantly by school type on this item ($z=-5.52$, $df=2$, $p<.05$), with a small effect size (0.29) found. Kgatleng region teachers agreed more ($M=3.33$) than South East region teachers ($M=3.06$) that current practices involved core and optional subjects that promoted successful post-school outcomes. Again, participants tended to agree or agreed ($M=2.88-3.29$) that transition practices involved inclusive education supports related to transition services provisions. Responses differed significantly by school region on this item ($z=-7.05$, $df=2$, $p<.05$), with a small effect size (0.41) found. Kgatleng region teachers agreed more ($M=3.29$) than South East region teachers ($M=2.88$) that current transition practices involved inclusive education supports related to transition services provision.

Overall, secondary school participants in this study agreed that current transition practices in their schools involved (a) academic subject instruction related to postsecondary

Table 28

Kruskal-Wallis Analysis for Junior and Senior Secondary School Respondents' Perceptions

About Current Transition Practices by Teacher Position

	General Education Teacher (<i>n</i> =875)			Special Education Teacher (<i>n</i> =80)			Guidance and Counseling Teacher (<i>n</i> =73)					
<i>The current JCE/BGCSE practices in my school involve:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Academic subject instruction related to postsecondary education, vocational education training, and/or employment	787	3.12	1.03	69	2.91	0.98	71	3.14	1.02	2	4.07	0.07
Functional subject instruction related to postsecondary education, vocational education training, and/or employment	784	3.14	0.99	72	3.01	1.00	70	2.43	0.91	2	35.12	0.19

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

education, vocational education training, and/or employment ($M=3.10$), and (b) functional subject instruction related to postsecondary education, vocational education training, and/or employment ($M=3.08$).

Table 28 displays results from Kruskal-Wallis tests conducted by teacher position on questions 41 and 42 (junior and senior secondary schools) to determine statistical differences in

Table 29

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Perceptions

About Current Transition Practices by School Type

<i>The current JCE/BGCSE practices in my school involve:</i>	Junior Secondary School (n=770)			Senior Secondary School (n=258)			<i>df</i>	<i>z</i>	<i>d</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
Academic subject instruction related to postsecondary education, vocational education training, and/or employment	702	3.05	1.07	225	3.27	0.83	2	-1.85	0.22
Functional subject instruction related to postsecondary education, vocational education training, and/or employment	698	3.03	1.03	228	3.22	0.89	2	-2.14	0.19

*Note.** $p < .05$. ** $p < .01$. *** $p < .001$.

participants' perceptions of current transition practices in their schools. General education teachers, special education teachers, and guidance and counseling teachers tended to agree or agreed ($M=2.91$ - 3.14) that the current practices in their schools involved academic subject instruction related to postsecondary education, vocational education training, and/or employment. There was no significant difference reported by teacher position ($\chi^2 = 4.07$, $df = 2$, $p > .05$). Participants tended to disagree, tended to agree, or agreed ($M=2.43$ - 3.14) that transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education training, and/or employment. Responses differed by teacher position ($\chi^2 = 35.12$, $df = 2$, $p < .05$), with a small effect size (0.19). Results from a Mann Whitney U post hoc test supported the conclusion that guidance and counseling teachers differed

significantly from general and special education teachers in their responses. General education teachers agreed more ($M=3.14$) than guidance and counseling teachers ($M=2.43$) that transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education training, and/or employment ($z=-5.86, p<.01$). Furthermore, special education teachers ($M=3.41$) showed more agreement than guidance and counseling teachers ($M=2.43$) on this item ($z=-3.68, p<.01$).

Table 29 displays Mann Whitney U tests conducted by school type on questions 41 and 42 (secondary schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. Junior and senior secondary school teachers agreed ($M=3.05-3.27$) that the current practices in their schools involved academic subject instruction related to postsecondary education, vocational education training, and/or employment. There was no significant difference by school type ($z=-1.85, df=2, p>.05$). Participants also agreed ($M=3.03-3.22$) that transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education training, and/or employment. Responses differed significantly by school type ($z=-2.14, df=2, p<.05$). Senior secondary teachers agreed more ($M=3.22$) than junior secondary teachers ($M=3.03$) that transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education training, and/or employment.

Table 30 presents results from Mann Whitney U tests conducted by school region on questions 41 and 42 (secondary schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. Kgatleng region and South East region teachers tended to agree or agreed ($M=2.90-3.38$) that the current practices in their schools involved academic subject instruction related to postsecondary education, vocational education

training, and/or employment. Responses differed significantly by school region ($z=-7.96$, $df=2$, $p<.05$), with a small effect size (0.48). Kgatleng region teachers agreed more ($M=3.38$) than South East region teachers ($M=2.90$) that transition practices in their schools involved academic subject instruction related to postsecondary education, vocational education training, and/or employment. Participants also tended to agree or agreed ($M=2.90-3.32$) that transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education training and/or employment. Teachers' responses differed significantly by school region ($z=-7.15$, $df=2$, $p<.05$), with a small effect size (0.43). Again, Kgatleng region teachers agreed more ($M=3.32$) than South East region teachers ($M=2.90$) that transition practices in their schools involved functional subject instruction related to postsecondary education, vocational education training, and/or employment.

Table 30

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Perceptions About Current Transition Practices by School Region

	Kgatlang Region ($n=407$)			South East Region ($n=621$)			df	z	d
	n	M	SD	n	M	SD			
<i>The current JCE/BGCSE practices in my school involve:</i>									
Academic subject instruction related to postsecondary education, vocational education training, and/or employment	391	3.38	0.97	536	2.90	1.01	2	-7.96	0.48
Functional subject instruction related to postsecondary education, vocational education training, and/or employment	390	3.32	0.99	536	2.90	0.97	2	-7.15	0.43

Note.* $p<.05$.** $p<.01$ *** $p<.001$.

Overall, junior secondary school participants in this study agreed that current transition practices in their schools involved junior secondary supports related to successful transition outcomes ($M=3.03$). Table 31 shows results from a Kruskal-Wallis test conducted by teacher

Table 31

Kruskal-Wallis Analysis for Junior Secondary School Respondents' Perceptions About Current Transition Practices by Teacher Position

	General Education Teacher ($n=662$)			Special Education Teacher ($n=57$)			Guidance and Counseling Teacher ($n=51$)			df	χ^2	w
	n	M	SD	n	M	SD	n	M	SD			
<i>The current JCE practices in my school involve:</i>												
Junior secondary supports related to successful transition outcomes	601	3.06	1.05	53	2.64	1.02	50	3.04	0.78	2	9.48	0.12

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

position on question 44 (junior secondary schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. General education teachers, special education teachers, and guidance and counseling teachers tended to agree or agreed ($M=2.64$ - 3.04) that the current practices in their schools involved junior secondary supports related to successful post-school outcomes. Responses differed significantly by teacher position ($\chi^2=9.48$, $df=2$, $p<.05$) with a small noted effect size (0.12). Results from a Mann Whitney U post hoc test results showed that special education teachers were significantly different from general education, guidance, and counseling teachers. General education teachers agreed more ($M=3.06$) than special education teachers ($M=2.64$) that transition practices in their

schools involved junior secondary supports related to successful post-school outcomes ($z=-3.00$, $p<.01$). Additionally, guidance and counseling teachers ($M=3.04$) showed more agreement than special education teachers ($M=2.64$) on this item ($z=-2.05$, $p<.05$).

Table 32 presents results from a Mann Whitney U test conducted by school region on question 44 (junior secondary schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. Kgatleng region and South East region teachers tended to agree or agreed ($M=2.90-3.22$) that the current practices in their schools involved junior secondary supports related to successful post-school outcomes. There was a significant difference reported by school region ($z=-4.38$, $df=2$, $p<.05$), with a small effect size (0.31) noted. Kgatleng region teachers agreed more ($M=3.22$) than South East region teachers ($M=2.90$) that transition practices in their schools involved junior secondary supports related to successful post-school outcomes.

Table 32

Mann Whitney U Analysis for Junior Secondary School Respondents' Perceptions About Current Transition Practices by School Region

<i>The current JCE practices in my school involve:</i>	Kgatlang Region ($n=293$)			South East Region ($n=477$)			df	z	d
	n	M	SD	n	M	SD			
Junior secondary supports related to successful transition outcomes	275	3.22	1.03	429	2.90	1.01	2	-4.38	0.31

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Overall, senior secondary school participants in this study tended to disagree that current transition practices in their schools involved senior secondary supports related to successful

transition outcomes ($M=2.01$). Table 33 presents results from a Kruskal-Wallis test conducted by teacher position on question 44 (senior secondary schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. General education teachers, special education teachers, and guidance and counseling teachers disagreed or tended to disagree ($M=1.96-2.27$) that the current practices in their schools involved senior secondary supports related to successful post-school outcomes. Respondents' answers differed significantly by teacher position ($\chi^2=6.25$, $df=2$, $p<.05$) with a small effect size (0.16) noted. Results of a Mann Whitney U post hoc test showed that general education teachers and special education teachers differed significantly in their responses. General education teachers agreed less ($M=1.96$) than special education teachers ($M=2.27$) that transition practices in their schools involved senior secondary supports related to successful post-school outcomes ($z=-2.18$, $p<.05$).

Table 33

Kruskal-Wallis Analysis for Senior Secondary School Respondents' Perceptions About Current Transition Practices by Teacher Position

	General Education Teacher ($n=213$)			Special Education Teacher ($n=23$)			Guidance and Counseling Teacher ($n=22$)					
	n	M	SD	n	M	SD	n	M	SD	df	χ^2	w
<i>The current BGCSE practices in my school involve:</i>												
Senior secondary supports related to successful transition outcomes	192	1.96	1.10	22	2.27	0.55	22	2.23	0.92	2	6.25	0.16

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Table 34 displays results from a Mann Whitney *U* test conducted by school region on question 44 (senior secondary schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. Kgatleng region and South East region teachers disagreed or tended to disagree ($M=1.25-2.73$) that the current practices in their schools involved senior secondary supports related to successful post-school outcomes. Responses differed significantly by school region ($z=-11.52$, $df=2$, $p<.05$), with a small effect size (0.21) present. Kgatleng region teachers agreed less ($M=1.25$) than South East region teachers ($M=2.73$) that transition practices in their schools involved senior secondary supports related to successful post-school outcomes.

Table 34

Mann Whitney U Analysis for Senior Secondary School Respondents' Perceptions About Current Transition Practices by School Region

	Kgatlang Region ($n=114$)			South East Region ($n=144$)			<i>df</i>	<i>z</i>	<i>d</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
<i>The current BGCSE practices in my school involve:</i>									
Senior secondary supports related to successful transition outcomes	114	1.25	0.57	122	2.73	0.86	2	-11.52	0.21

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Overall, vocational school participants in this study agreed that current transition practices in their schools involved the following: (a) academic subject instruction related to higher education and/or employment ($M=2.98$); (b) functional subject instruction related to higher education and/or employment ($M=2.94$); and (c) vocational supports related to successful post-school outcomes ($M=3.07$). Table 35 displays results from Mann Whitney *U* tests

conducted by school region on questions 45, 46, and 48 (vocational schools) to determine statistical differences in participants' perceptions of current transition practices in their schools. Kgatleng region and South East region teachers tended to agree or agreed ($M=2.75-3.14$) that the current practices in their schools involved academic subject instruction related to higher education and/or employment. There was a significant difference reported by school region ($z=-2.23$, $df=2$, $p<.05$), with a small effect size (0.47). South East region teachers agreed more ($M=3.14$) than Kgatleng region teachers ($M=2.75$) that transition practices in their schools involved academic subject instruction related to higher education and/or employment.

Table 35

Mann Whitney U Analysis for Vocational School Respondents' Perceptions About Current Transition Practices by School Region

	Kgatlang Region ($n=67$)			South East Region ($n=91$)			df	z	d
	n	M	SD	n	M	SD			
<i>The current vocational practices in my school involve:</i>									
Academic subject instruction related to higher education and/or employment	60	2.75	1.00	86	3.14	0.67	2	-2.23	0.47
Functional subject instruction related to higher education and/or employment	62	2.69	1.03	84	3.12	0.61	2	-2.39	0.53
Vocational supports related to successful transition outcomes	61	2.72	1.00	86	3.33	0.89	2	-3.80	0.65

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Participants also tended to agree or agreed ($M=2.69-3.12$) that transition practices in their schools involved functional subject instruction related to higher education and/or employment.

Results from respondents differed by school region ($z=-2.39$, $df=2$, $p<.05$), with a moderate effect size (0.53). Furthermore, South East region teachers agreed more ($M=3.12$) than Kgatleng region teachers ($M=2.69$) that transition practices in their schools involved functional subject instruction related to higher education and/or employment. Kgatleng region and South East region teachers tended to agree or agreed ($M=2.72-3.33$) that the current practices in their schools involved vocational supports related to successful post-school outcomes. Respondents' answers differed significantly by school region ($z=-3.80$, $df=2$, $p<.05$), with a moderate effect size (0.65). South East region teachers agreed more ($M=3.33$) than Kgatleng region teachers ($M=2.72$) that transition practices in their schools involved vocational supports related to successful post-school outcomes.

Research Question 3

The third research question examined whether teachers perceived that specific transition practices and services prepared students with visual impairments for postsecondary education and/or employment in Botswana. The question further examined if there were differences among the beliefs and perceptions of general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers regarding transition practices for preparing students with visual impairments to have successful postsecondary education and/or employment in Botswana.

Participants' "Do Not Know" Responses on Specific Transition Practices for Students with Visual Impairments

Table 36 presents summary statistics by position for participants who answered "Do Not Know" to questions 46 to 55 (junior and senior secondary schools) and questions 50 to 59 (vocational schools). Ninety-two (92) general education teachers (10.5%) answered "Do Not

Know” when asked if they believed that the current secondary school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Seventy-one (71) general education teachers (8.1%) answered “Do Not Know” regarding whether they believed that the current program prepared students with visual impairments through training them in the use of assistive technology. Eighty teachers (9.1%) answered “Do Not Know” concerning their beliefs on training of students in orientation and mobility skills. Regarding their beliefs about training students in social skills, 75 general education teachers (8.6%) selected “Do Not Know.” Moreover, 94 (10.7%) answered “Do Not Know” concerning beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, 92 general education teachers (10.5%) answered “Do Not Know.” Additionally, 89 (10.2%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Eighty-three (83) general education teachers (9.5%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program provided students with vocational instruction, 89 general education teachers (10.2%) answered “Do Not Know.” Another 60 (6.9%) selected “Do Not Know” concerning the training of students in academic skills.

Four (4) special education teachers (5.0%) answered “Do Not Know” when asked if they believed that the current secondary school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Four (4) special education teachers (5.0%) answered “Do Not Know” regarding whether they believed

that the current program prepared students with visual impairments through training students in the use of assistive technology. Again, four (5.0%) answered “Do Not Know” concerning their beliefs on training students in orientation and mobility skills. Regarding their beliefs about training students in social skills, four special education teachers (5.0%) selected “Do Not Know.” Moreover, six (7.5%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, seven special education teachers (8.8%) answered “Do Not Know.” Additionally, seven (8.8%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Seven (7) special education teachers (8.8%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program provided students with vocational instruction, seven special education teachers (8.8%) answered “Do Not Know.” Another five (6.3%) selected “Do Not Know” concerning the training of students in academic skills.

In addition, 5 guidance and counseling teachers (6.3%) answered “Do Not Know” when asked if they believed that the current secondary school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Seven (7) guidance and counseling teachers (9.6%) answered “Do Not Know” regarding whether they believed that the current program prepared students with visual impairments through training students in the use of assistive technology. Again, seven (9.6%) answered “Do Not Know” concerning their beliefs on training students in orientation and mobility skills. Regarding their beliefs about training students in social skills, five guidance and counseling

Table 36

Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position

	General Education Teacher (n=875)		Special Education Teacher (n=80)		Guidance and Counseling Teacher (n=73)		Vocational Teacher (n=158)		Total (N=1186)	
<i>I believe the current junior/senior/vocational school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Training students in self-determination skills	92	10.5	4	5.0	5	6.8	25	15.8	126	10.6
Training of students in the use of assistive technology	71	8.1	4	5.0	7	9.6	28	17.7	110	9.3
Training of students in orientation and mobility skills	80	9.1	4	5.0	7	9.6	26	16.5	117	9.9
Training of students in social skills	75	8.6	4	5.0	5	6.8	22	13.9	106	8.9
Providing students with unpaid work experiences within the school	94	10.7	6	7.5	8	11.0	28	17.7	136	11.5
Providing students with unpaid work experiences outside the school	92	10.5	7	8.8	9	12.3	29	18.4	137	11.6
Providing students with paid work opportunities within the school	89	10.2	7	8.8	8	11.0	24	15.2	128	10.8

Table 36 *continued*

Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position

	General Education Teacher (n=875)		Special Education Teacher (n=80)		Guidance and Counseling Teacher (n=73)		Vocational Teacher (n=158)		Total (N=1186)	
<i>I believe the current junior/senior/vocational school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Providing students with paid work opportunities outside the school	83	9.5	7	8.8	8	11.0	28	17.7	126	10.6
Providing students with vocational instruction/employment skills	89	10.2	7	8.8	6	8.2	27	17.1	116	9.8
Training of students in academic skills	60	6.9	5	6.3	5	6.8	28	17.7	98	8.3

Note. Percentages represent data reported by category and totals.

teachers (6.8%) selected “Do Not Know.” Moreover, eight (11.0%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, nine guidance and counseling teachers (12.3%) answered “Do Not Know.” Furthermore, eight (11.0%) answered “Do Not Know” regarding their beliefs on providing

students with paid work opportunities within the school. Eight (8) guidance and counseling teachers (11.0%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program provided students with vocational instruction, six guidance and counseling teachers (8.2%) answered “Do Not Know.” Another 5 (6.8%) selected “Do Not Know” concerning the training of students in academic skills.

Twenty-five (25) vocational teachers (15.8%) answered “Do Not Know” when asked if they believed that the current vocational school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Twenty-eight (28) vocational teachers (17.7%) answered “Do Not Know” regarding whether they believed that the current program prepared students with visual impairments for successful post-school outcomes through training of students in the use of assistive technology. Furthermore, 26 (16.5%) answered “Do Not Know” concerning their beliefs on training of students in orientation and mobility skills. Regarding the belief of training of students in social skills, 22 vocational teachers (13.9%) selected “Do Not Know.” Moreover, 28 (17.7%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, 29 vocational teachers (18.4%) answered “Do Not Know.” Additionally, 24 (15.2%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Twenty-eight (28) vocational teachers (17.7%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program taught

students employment skills, 27 vocational teachers (17.1%) answered “Do Not Know.” Another 28 (17.7%) selected “Do Not Know” concerning the training of students in academic skills.

Overall, fewer than 25% of respondents in each teacher position group answered “Do Not Know” to all statements. No results were at or above the benchmark for further professional development and awareness. The findings indicate that participants generally understood transition practices and principles for students with visual impairments in Botswana.

Summary statistics by school type in Table 37 include participants’ “Do Not Know” responses to questions about their beliefs on effective transition planning strategies for students with visual impairments. Seventy-four (74) junior secondary teachers (9.6%) answered “Do Not Know” when asked if they believed that the current secondary school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Sixty-one (61) junior secondary teachers (7.9%) answered “Do Not Know” regarding whether they believed that the current program prepared students with visual impairments through training in the use of assistive technology. Furthermore, 63 (8.2%) answered “Do Not Know” concerning their beliefs on student training in orientation and mobility skills. Regarding their beliefs on training students in social skills, 56 junior secondary teachers (7.3%) selected “Do Not Know.” Moreover, 75 (9.7%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, 81 junior secondary teachers (10.5%) answered “Do Not Know.” Additionally, 77 (10.0%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Seventy-three (73) junior secondary teachers

(9.5%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program provided students with vocational instruction, 83 junior secondary teachers (10.8%) answered “Do Not Know.” Another 54 (7.0%) selected “Do Not Know” concerning the training of students in academic skills.

Twenty-seven (27) senior secondary teachers (10.5%) answered “Do Not Know” when asked if they believed that the current secondary school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Twenty-one (21) senior secondary teachers (8.1%) answered “Do Not Know” regarding whether they believed that the current program prepared students with visual impairments through training students in the use of assistive technology. Furthermore, 28 teachers (10.9%) answered “Do Not Know” concerning their beliefs on training students in orientation and mobility skills. Regarding their beliefs about training students in social skills, 28 senior secondary teachers (10.9%) selected “Do Not Know.” Additionally, 32 senior secondary teachers (12.8%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, 27 senior secondary teachers (10.5%) answered “Do Not Know.” Another 27 senior secondary teachers (10.5%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Twenty-five (25) senior secondary teachers (9.7%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program provided students with

Table 37

Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Vocational School (n=158)		Total (N=1186)	
<i>I believe the current junior/senior/vocational school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Training students in self-determination skills	74	9.6	27	10.5	25	15.8	126	10.6
Training of students in the use of assistive technology	61	7.9	21	8.1	28	17.7	110	9.3
Training of students in orientation and mobility skills	63	8.2	28	10.9	26	16.5	117	9.9
Training of students in social skills	56	7.3	28	10.9	22	13.9	106	8.9
Providing students with unpaid work experiences within the school	75	9.7	33	12.8	28	17.7	136	11.5
Providing students with unpaid work experiences outside the school	81	10.5	27	10.5	29	18.4	137	11.6
Providing students with paid work opportunities within the school	77	10.0	27	10.5	24	15.2	128	10.8
Providing students with paid work opportunities outside the school	73	9.5	25	9.7	28	17.7	126	10.6

Table 37 *continued*

Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Vocational School (n=158)		Total (N=1186)	
<i>I believe the current junior/senior/vocational school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Providing students with vocational instruction/employment skills	83	10.8	19	9.4	27	17.1	129	10.9
Training of students in academic skills	54	7.0	16	6.2	28	17.7	98	8.3

Note. Percentages represent data reported by category and totals.

vocational instruction, 19 senior secondary teachers (7.4%) answered “Do Not Know.” Another 16 (6.2%) selected “Do Not Know” concerning the training of students in academic skills.

Concerning vocational school teachers, 25 vocational school teachers (15.8%) answered “Do Not Know” when asked if they believed that the current vocational school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Twenty-eight (28) vocational school teachers (17.7%) answered “Do Not Know” regarding whether they believed that the current program prepared students with visual impairments through student training in the use of assistive technology. Again, 26 (16.5%) answered “Do Not Know” concerning their beliefs on training of students in orientation and mobility skills. Regarding their beliefs on training students in social skills, 22 vocational school

teachers (13.9%) selected “Do Not Know.” Moreover, 28 (17.7%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, 29 vocational school teachers (18.4%) answered “Do Not Know.” Additionally, 24 (15.2%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Twenty-eight (28) vocational school teachers (17.7%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program taught students employment skills, 27 vocational school teachers (17.1%) answered “Do Not Know.” Another 28 (17.7%) selected “Do Not Know” concerning the training of students in academic skills.

Overall, the results demonstrated that fewer than 25% of vocational teachers answered “Do Not Know” to any single statement. The “Do Not Know” percentages ranged between 6.2% and 18.4%, indicating that participants understood transition practices and principles for students with visual impairments in Botswana.

Table 38 shows summary statistics by school region of participants’ “Do Not Know” responses to questions about their beliefs on effective transition planning strategies for students with visual impairments. Thirty-five (35) Kgatleng region teachers (7.4%) answered “Do Not Know” when asked if they believed that the current secondary/vocational school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Thirty-three (33) Kgatleng region teachers (7.0%) answered “Do Not Know” regarding whether they believed that the current program prepared students with

Table 38

Percentages of “Do Not Know” Responses of Beliefs on Effective Transition Planning Strategies for Students with Visual Impairments by School Region

	Kgatleng Region (n=474)		South East Region (n=712)		Total (N=1186)	
<i>I believe the current junior/senior/vocational school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Training students in self-determination skills	35	7.4	91	12.8	126	10.6
Training of students in the use of assistive technology	33	7.0	77	10.8	110	9.3
Training of students in orientation and mobility skills	34	7.2	83	11.7	117	9.9
Training of students in social skills	32	6.8	74	10.4	106	8.9
Providing students with unpaid work experiences within the school	39	8.2	97	13.6	136	11.5
Providing students with unpaid work experiences outside the school	42	8.9	95	13.3	137	11.6
Providing students with paid work opportunities within the school	37	7.8	91	12.8	128	10.8
Providing students with paid work opportunities outside the school	39	8.2	87	12.2	126	10.6
Providing students with vocational instruction/employment skills	39	8.2	88	12.4	129	10.9
Training of students in academic skills	32	6.8	66	9.3	98	8.3

Note. Percentages represent data reported by category and totals.

visual impairments through training in the use of assistive technology. Again, 34 (7.2%) answered “Do Not Know” concerning their beliefs about student training in orientation and mobility skills. Regarding their beliefs about student training in social skills, 32 Kgatleng region teachers (6.8%) selected “Do Not Know.” Moreover, 39 (8.2%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, 42 Kgatleng region teachers (8.9%) answered “Do Not Know.” Additionally, 37 (7.8%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Thirty-nine (39) Kgatleng region teachers (8.2%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program provided students with vocational instruction, 26 Kgatleng region teachers (6.4%) answered “Do Not Know.” When asked if they believed that the current program taught students employment skills, 13 Kgatleng region teachers (19.4%) answered “Do Not Know.” Another 32 (6.8%) selected “Do Not Know” concerning the training of students in academic skills.

Ninety-one (91) South East region teachers (12.8%) answered “Do Not Know” when asked if they believed that the current secondary/vocational school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Seventy-seven (77) South East region teachers (10.8%) answered “Do Not Know” regarding whether they believed that the current program prepared students with visual impairments through training of students in the use of assistive technology. Again, 83 (11.7%) answered “Do Not Know” concerning their beliefs on training of students in orientation and

mobility skills. Regarding their beliefs about training students in social skills, 74 South East region teachers (10.4%) selected “Do Not Know.” Moreover, 97 (13.6%) answered “Do Not Know” concerning their beliefs on providing students with unpaid work experiences within the school. When asked if they believed that the current program prepared students with visual impairments for successful post-school outcomes through providing students with unpaid work experiences outside the school, 95 South East region teachers (13.3%) answered “Do Not Know.” Furthermore, 91 (12.8%) answered “Do Not Know” regarding their beliefs on providing students with paid work opportunities within the school. Eighty-seven (87) South East region teachers (12.2%) selected “Do Not Know” concerning their beliefs on providing students with paid work opportunities outside the school. When asked if they believed that the current program provided students with vocational instruction, 76 South East region teachers (12.2%) answered “Do Not Know.” When asked if they believed that the current program taught students employment skills, 14 South East region teachers (15.4%) answered “Do Not Know.” Another 66 (9.3%) selected “Do Not Know” concerning the training of students in academic skills.

There was no group of respondents sorted by school region who selected “Do Not Know” in response to any statement at or above the 25% cut-off point which would indicate the need for additional training. The “Do Not Know” percentages ranged from 6.4% to 19.4%. The findings indicate that participants understood transition practices and principles for students with visual impairments in Botswana.

Participants’ Differences on Specific Transition Practices for Students with Visual Impairments

Overall, participants in this study had different agreement levels concerning effective transition planning strategies for students with visual impairments in their schools. Participants

in this study tended to agree that their current school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills ($M=2.76$). Participants also tended to agree that their current school program prepared students for successful post-school outcomes through training students in the use of assistive technology ($M=2.97$). Additionally, participants tended to agree that their school programs prepared students for successful post-school outcomes through student training in orientation and mobility skills ($M=2.80$). Furthermore, participants tended to agree that their schools trained students in social skills ($M=2.99$). Participants tended to agree that their schools' programs prepared students for successful post-school outcomes through providing unpaid work experiences within the school ($M=2.57$). Moreover, participants tended not to believe that their school program prepared students for successful post-school outcomes through providing students with unpaid work experiences outside the school ($M=2.25$). Participants also did not believe that their schools provided students with paid work opportunities within the school ($M=2.25$). Furthermore, participants tended to believe that their schools did not provide students with paid work opportunities outside the school ($M=2.47$). Participants in this study tended to agree that the current school program prepared students for successful post-school outcomes through training of students in academic skills ($M=2.86$).

Table 39 presents results of Kruskal-Wallis tests conducted by teacher position on questions 46 to 53 and 55 (junior and senior secondary schools), as well as questions 50 to 57 and 59 (vocational schools) to determine statistical differences in participants' beliefs about effective transition planning strategies for students with visual impairments in their schools. General education teachers, special education teachers, guidance and counseling teachers, and vocational teachers tended to agree ($M=2.65$ - 2.81) that the current school program prepared

students with visual impairments for successful post-school outcomes through training students in self-determination skills. Responses did not differ significantly by teacher position ($\chi^2= 2.03$, $df=3$, $p>.05$). Participants tended to agree or agreed ($M=2.63$ - 3.04) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in the use of assistive technology. Respondents differed significantly by teacher position ($\chi^2= 21.57$, $df=3$, $p<.05$), with a small effect size (0.14). Results from a Mann Whitney *U* test comparing position groups showed that general education teachers significantly differed from special education and guidance and counseling teachers. General education teachers showed more agreement ($M=3.04$) than special education teachers ($M=2.63$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in the use of assistive technology ($z=-3.52$, $p<.01$). General education teachers ($M=3.04$) also showed more agreement than guidance and counseling teachers ($M=2.71$) on this item ($z=-3.06$, $p<.01$).

Participants tended to agree or agreed ($M=2.62$ - 3.83) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in orientation and mobility skills. There was no significant difference reported by teacher position ($\chi^2= 6.36$, $df=3$, $p>.05$). Participants tended to agree or agreed ($M=2.94$ - 3.09) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in social skills. Respondents did not differ significantly by teacher position ($\chi^2= .44$, $df= 3$, $p>.05$). Regarding the statement that their school program prepared students for successful post-school outcomes through providing unpaid work experiences within the school, participants tended to disagree or tended to agree ($M=2.11$ - 2.91). Respondents differed significantly between position groups on this item ($\chi^2= 17.63$, $df=3$, $p<.05$),

with a small effect size (0.13). Results from a Mann Whitney *U* post hoc test supported that both general education teachers and vocational teachers differed significantly from special education and guidance and counseling teachers in responses. Furthermore, responses significantly differed between special education and guidance and counseling teachers. General education teachers tended to agree more ($M=2.60$) than special education teachers ($M=2.11$) that their school program prepared students for successful post-school outcomes through providing unpaid work experiences within the school ($z=-3.31, p<.01$). However, general education teachers ($M=2.60$) tended to agree less than guidance and counseling teachers ($M=2.91$) on this item ($z=-1.98, p<.05$). Vocational teachers tended to agree less ($M=2.54$) than special education teachers ($M=2.60$) that their school program prepared students for successful post-school outcomes through providing unpaid work experiences within the school ($z=-2.96, p<.01$). Vocational teachers ($M=2.54$) also tended to agree less than guidance and counseling teachers ($M=2.91$) on this item ($z=-2.45, p<.05$). Furthermore, special education teachers ($M=2.60$) also tended to agree less than guidance and counseling teachers ($M=2.91$) on the same item ($z=-4.11, p<.01$).

Participants disagreed, tended to disagree, or tended to agree ($M=1.66-2.55$) that their school program prepared students for successful post-school outcomes through providing unpaid work experiences outside the school. Position groups differed significantly on this item ($\chi^2=35.39, df=3, p<.05$), with a small effect size (0.18). Results from a Mann Whitney *U* post hoc test supported the conclusion that vocational teachers varied significantly from general education, special education, and guidance and counseling teachers. Furthermore, special education teachers differed significantly from general and guidance and counseling teachers. General education teachers agreed less ($M=2.25$) than vocational teachers ($M=2.55$) that their school program prepared students for successful post-school outcomes through providing unpaid work

experiences outside the school ($z=-3.02, p<.01$). Additionally, special education teachers ($M=1.66$) showed less agreement than vocational teachers ($M=2.55$) on this item ($z=-6.19, p<.01$). Guidance and counseling teachers ($M=2.22$) showed less agreement than vocational teachers ($M=2.55$) on the same item ($z=-2.50, p<.05$). Furthermore, special education teachers agreed less ($M=1.66$) than general education teachers ($M=2.25$) that their school program prepared students for successful post-school outcomes through providing unpaid work experiences outside the school ($z=-4.65, p<.01$). Likewise, special education teachers' responses ($M=1.66$) showed less agreement than guidance and counseling teachers' responses ($M=2.55$) on this item ($z=-3.38, p<.01$). Regarding school programs preparing students for successful post-school outcomes through providing students with paid work opportunities within the school, participants disagreed, tended to disagree, or tended to agree ($M=1.64-2.60$) with this statement. Respondents differed significantly by position group on this item ($\chi^2= 38.17, df=3, p<.05$), with a small effect size (0.19). Results from a Mann Whitney *U* post hoc test supported the conclusion that vocational teachers varied significantly from general education, special education, and guidance and counseling teachers on this item. Furthermore, special education teachers differed significantly from general and guidance and counseling teachers. General education teachers agreed less ($M=2.26$) than vocational teachers ($M=2.60$) that their school program prepared students for successful post-school outcomes through providing paid work opportunities within the school ($z=-3.32, p<.01$). Additionally, special education teachers ($M=1.64$) showed less agreement than vocational teachers ($M=2.60$) on this item ($z=-6.16, p<.01$). Guidance and counseling teachers ($M=2.12$) exhibited less agreement than vocational teachers ($M=2.60$) on the same item ($z=-2.93, p<.01$). Furthermore, special education teachers agreed less ($M=1.64$) than general education teachers ($M=2.26$) that their school programs prepared students for successful

Table 39

Kruskal-Wallis Analysis for Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position

	General Education Teacher (n=875)			Special Education Teacher (n=80)			Guidance and Counseling Teacher (n=73)			Vocational Teacher (N=158)					
<i>I believe the current school program prepares students with visual impairments for successful post- school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Training students in self-determination skills	783	2.75	1.01	76	2.78	0.95	68	2.65	0.97	133	2.81	1.09	3	2.03	0.04
Training of students in the use of assistive technology	804	3.04	1.12	76	2.63	1.04	66	2.71	0.94	130	2.88	1.08	3	21.57	0.14
Training of students in orientation and mobility skills	795	2.83	0.98	76	2.70	1.06	66	2.62	0.87	132	2.77	0.96	3	6.36	0.08
Training of students in social skills	800	2.99	0.93	76	2.96	0.96	68	3.09	0.64	136	2.94	0.96	3	0.44	0.02
Providing students with unpaid work experiences within the school	781	2.60	1.30	74	2.11	1.03	65	2.91	1.14	130	2.54	0.93	3	17.63	0.13
Providing students with unpaid work experiences outside the school	783	2.25	1.06	73	1.66	0.89	64	2.22	1.05	129	2.55	0.91	3	35.39	0.18
Providing students with paid work opportunities within the school	786	2.26	1.08	73	1.64	0.84	65	2.12	1.04	134	2.60	1.03	3	38.17	0.19
Providing students with paid work opportunities outside the school	792	2.57	1.13	73	1.63	0.79	65	1.74	0.74	130	2.76	1.02	3	83.89	0.28

Table 39 *continued*

Kruskal-Wallis Analysis for Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position

	General Education Teacher (n=875)			Special Education Teacher (n=80)			Guidance and Counseling Teacher (n=73)			Vocational Teacher (N=158)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Training of students in academic skills	815	2.78	1.05	75	3.16	1.01	68	2.94	0.90	130	3.18	0.90	3	24.41	0.15

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

post-school outcomes through providing paid work opportunities within the school ($z = -4.68$, $p < .01$). Likewise, special education teachers ($M = 1.64$) showed less agreement than guidance and counseling teachers ($M = 2.12$) on this item ($z = -2.77$, $p < .01$).

Participants disagreed, tended to disagree, or tended to agree ($M = 1.63$ - 2.76) that school programs prepared students for successful post-school outcomes through providing students with paid work opportunities outside the school. However, there were significant differences between position groups on this item ($\chi^2 = 83.89$, $df = 3$, $p < .05$), with a small effect size (0.28). Results from a Mann Whitney U post hoc test supported the conclusion that both general education and vocational teachers were significantly different from special education and guidance and counseling teachers. Special education teachers agreed less ($M = 1.63$) than general education teachers ($M = 2.57$) that their school programs prepared students for successful post-school outcomes through providing paid work opportunities outside the school ($z = -6.73$, $p < .01$). Guidance and counseling teachers ($M = 1.74$) showed less agreement than general education

teachers ($M=2.57$) on this item ($z=-5.79, p<.01$). Additionally, special education teachers ($M=1.63$) showed less agreement than vocational teachers ($M=2.76$) that their school program prepared students for successful post-school outcomes through providing paid work opportunities outside the school ($z=-7.14, p<.01$). Guidance and counseling teachers also agreed less ($M=1.74$) than vocational teachers ($M=2.76$) on the same item ($z=-6.49, p<.01$). Participants tended to agree or agreed ($M=2.78-3.18$) that their current school program prepared students for successful post-school outcomes through training of students in academic skills. A significant difference between position groups was found on this item ($\chi^2=24.41, df=3, p<.05$), with a small effect size (0.15). Results from a Mann Whitney U post hoc test supported the conclusion that vocational teachers differed significantly from general education and guidance and counseling teachers. Additionally, there was a significant difference between general and special education teachers. Vocational teachers agreed more ($M=3.18$) than general education teachers ($M=2.78$) that their current school program prepared students for successful post-school outcomes through training of students in academic skills ($z=-4.07, p<.01$). Vocational teachers ($M=3.18$) also showed more agreement than guidance and counseling teachers ($M=2.94$) on this item ($z=-2.04, p<.05$). In addition, special education teachers agreed more ($M=3.16$) than general education teachers ($M=2.78$) on the same item ($z=-3.11, p<.01$).

Table 40 displays results from Kruskal-Wallis tests conducted by school type on questions 46 to 53 and 55 (junior and senior secondary schools), as well as questions 50 to 57 and 59 (vocational schools) to determine statistical differences in participants' beliefs about effective transition planning strategies for students with visual impairments in their schools. Junior secondary teachers, senior secondary teachers, and vocational school teachers tended to agree or agreed ($M=2.60-3.19$) that the current school program prepared students with visual

impairments for successful post-school outcomes through training students in self-determination skills. Responses differed significantly by school type ($\chi^2= 82.81$, $df=2$, $p<.05$), with a small effect size (0.28). Results from a Mann Whitney U test comparing school types supported the conclusion that junior secondary, senior secondary, and vocational school teachers differed significantly from each other. Junior secondary teachers showed less agreement ($M=2.60$) than senior secondary teachers ($M=3.19$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills ($z=-9.14$, $p<.01$). Junior secondary teachers ($M=2.60$) also showed less agreement than vocational school teachers ($M=2.81$) on this item ($z=-2.73$, $p<.01$); however, senior secondary teachers ($M=3.19$) showed more agreement than vocational school teachers ($M=2.81$) on the same item ($z=-3.66$, $p<.01$).

Participants tended to agree or agreed ($M=2.88$ - 3.17) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in the use of assistive technology. Responses varied significantly by school type ($\chi^2= 9.57$, $df=2$, $p<.05$). Results from a Mann Whitney U test comparing school types supported the conclusion that senior secondary teachers differed significantly from junior secondary and vocational school teachers in their responses. Senior secondary teachers agreed more ($M=3.17$) than junior secondary teachers ($M=2.92$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in the use of assistive technology ($z=-2.83$, $p<.01$). Senior secondary teachers ($M=3.71$) also exhibited more agreement than vocational school teachers ($M=2.88$) on this item ($z=-2.62$, $p<.01$). Participants tended to agree or agreed ($M=2.67$ - 3.21) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in orientation

and mobility skills. Respondents' answers differed significantly by school type ($\chi^2= 59.70$, $df=2$, $p<.05$), although the effect size (0.24) was small. Results from a Mann Whitney U test comparing school types supported the conclusion that senior secondary teachers significantly differed from junior secondary and vocational school teachers. Senior secondary teachers demonstrated more agreement ($M=3.21$) than junior secondary teachers ($M=2.67$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in orientation and mobility skills ($z=-7.67$, $p<.01$). Senior secondary teachers ($M=3.21$) also showed more agreement than vocational school teachers ($M=2.77$) on this item ($z=-4.58$, $p<.01$).

Participants tended to agree or agreed ($M=2.85$ - 3.44) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in social skills. Responses varied significantly by school type ($\chi^2= 92.20$, $df=2$, $p<.05$), although the effect size (0.29) was small. Results from a Mann Whitney U test comparing school types support that responses from senior secondary teachers vary significantly from those of junior secondary and vocational school teachers on this item. Senior secondary teachers showed more agreement ($M=3.44$) than junior secondary teachers ($M=2.85$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in social skills ($z=-9.72$, $p<.01$). Senior secondary teachers ($M=3.44$) also showed more agreement than vocational school teachers ($M=2.94$) on this item ($z=-5.34$, $p<.01$). Regarding the statement that their school program prepared students for successful post-school outcomes through providing unpaid work experiences within the school, participants disagreed, tended to disagree, or tended to agree ($M=1.87$ - 2.81). Responses differed significantly between school types on this item ($\chi^2= 103.32$, $df=2$, $p<.05$), with a small effect size (0.31). A Mann

Whitney *U* post hoc test showed that junior secondary, senior secondary, and vocational school teachers differed significantly from each other. Junior secondary teachers tended to agree more ($M=2.81$) than senior secondary teachers ($M=1.87$) that their school program prepared students for successful post-school outcomes through providing unpaid work experiences within the school ($z=-9.89, p<.01$). Junior secondary teachers ($M=2.81$) tended to agree more than vocational school teachers ($M=2.54$) on this item ($z=-3.16, p<.01$). Additionally, vocational school teachers tended to agree more ($M=2.54$) than senior secondary teachers ($M=1.87$) on the same item ($z=-5.97, p<.01$).

Participants disagreed, tended to disagree, or tended to agree ($M=1.84-2.55$) that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences outside the school. Responses varied significantly between school types on this item ($\chi^2=52.93, df=2, p<.05$), although the effect size (0.22) was small. Results from a Mann Whitney *U* post hoc test support the conclusion that junior secondary, senior secondary, and vocational school teachers differ significantly from each other. Senior secondary teachers agreed less ($M=1.84$) than junior secondary teachers ($M=2.33$) that their school program prepared students for successful post-school outcomes through providing unpaid work experiences outside the school ($z=-6.34, p<.01$). Furthermore, senior secondary teachers ($M=1.84$) showed less agreement than vocational school teachers ($M=2.55$) on this item ($z=-6.28, p<.01$). Additionally, junior secondary teachers ($M=2.33$) showed less agreement than vocational school teachers ($M=2.55$) on the same item ($z=-2.38, p<.05$). Regarding the statement that school programs prepared students for successful post-school outcomes through providing students with paid work opportunities within the school, participants disagreed, tended to disagree, or tended to agree ($M=1.78-2.60$) with this statement. Responses differed significantly by school type on this

Table 40

Kruskal-Wallis Analysis for Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Type

	Junior Secondary School (n=770)			Senior Secondary School (n=258)			Vocational School (n=158)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Training students in self-determination skills	696	2.60	0.93	231	3.19	1.07	133	2.81	1.09	2	82.81	0.28
Training of students in the use of assistive technology	709	2.92	1.13	237	3.17	1.01	130	2.88	1.08	2	9.57	0.09
Training of students in orientation and mobility skills	707	2.67	0.96	230	3.21	0.95	132	2.77	0.96	2	59.70	0.24
Training of students in social skills	714	2.85	0.90	230	3.44	0.81	136	2.94	0.96	2	92.20	0.29
Providing students with unpaid work experiences within the school	695	2.81	1.25	225	1.87	1.08	130	2.54	0.93	2	103.32	0.31
Providing students with unpaid work experiences outside the school	689	2.33	1.02	231	1.84	1.08	129	2.55	0.91	2	52.93	0.22
Providing students with paid work opportunities within the school	693	2.34	1.05	231	1.78	1.03	134	2.60	1.03	2	64.89	0.25
Providing students with paid work opportunities outside the school	697	2.24	1.03	233	3.03	1.20	130	2.76	1.02	2	102.67	0.31
Training of students in academic skills	716	2.60	1.03	242	3.47	0.76	130	3.18	0.90	2	143.50	0.36

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

item ($\chi^2 = 64.89$, $df = 2$, $p < .05$), with a small effect size (0.25). Results from a Mann Whitney U post hoc test demonstrated that junior secondary, senior secondary, and vocational school teachers varied significantly from each other. Senior secondary teachers agreed less ($M = 1.78$) than junior secondary teachers ($M = 2.34$) that their school program prepared students for successful post-school outcomes through providing paid work opportunities within the school ($z = -7.04$, $p < .01$). Also, senior secondary teachers ($M = 1.78$) showed less agreement than

vocational school teachers ($M=2.60$) on this item ($z=-7.07, p<.01$). Moreover, junior secondary teachers ($M=2.34$) showed less agreement than vocational teachers ($M=2.60$) on the same item ($z=-2.50, p<.05$).

On whether school programs prepared students for successful post-school outcomes through providing students with paid work opportunities outside the school, participants tended to disagree, tended to agree, or agreed ($M=2.24-3.03$). Responses varied significantly by school type on this item ($\chi^2=102.67, df=2, p<.05$), with a moderate effect size (0.31). Results from a Mann Whitney U post hoc test supported the conclusion that responses from junior secondary, senior secondary, and vocational school teachers differed significantly from each other. Junior secondary teachers agreed less ($M=2.24$) than senior secondary teachers ($M=3.03$) that their school program prepared students for successful post-school outcomes through providing paid work opportunities outside the school ($z=-9.54, p<.01$). Additionally, junior secondary teachers ($M=2.34$) showed less agreement than vocational school teachers ($M=2.76$) on this item ($z=-5.17, p<.01$). Moreover, vocational school teachers ($M=2.76$) tended to agree less than senior secondary teachers ($M=3.03$) on the same item ($z=-2.92, p<.01$). Participants tended to agree or agreed ($M=2.60-3.47$) that their current school program prepared students for successful post-school outcomes through training of students in academic skills. Responses from teachers varied significantly by school type on this item ($\chi^2=143.50, df=2, p<.05$), and the effect size (0.36) was small. A Mann Whitney U post hoc test showed that junior secondary, senior secondary, and vocational school teachers varied significantly from each other. Junior secondary teachers agreed less ($M=2.60$) than senior secondary teachers ($M=3.47$) that their school program prepared students for successful post-school outcomes through training students in academic skills ($z=-11.29, p<.01$). Additionally, junior secondary teachers' responses ($M=2.60$) showed less

agreement than vocational school teachers' responses ($M=3.18$) on this item ($z=-6.04, p<.01$). Furthermore, vocational school teachers ($M=3.18$) agreed less than senior secondary teachers ($M=3.47$) on the same item ($z=-3.32, p<.01$).

Table 41 displays results from a Mann Whitney U test conducted by school region on questions 46 to 53 and 55 (junior and senior secondary schools), as well as questions 50 to 57 and 59 (vocational schools) to determine statistical differences in participants' beliefs about effective transition planning strategies for students with visual impairments in their schools. Kgatleng region teachers and South East region teachers tended to agree ($M=2.62-2.95$) that the current school programs prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Responses differed significantly by school region ($z=-5.27, df=2, p<.05$), with a small effect size (0.33). Kgatleng region teachers tended to agree more ($M=2.95$) than South East region teachers ($M=2.62$) that the current school programs prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills. Participants tended to agree or agreed ($M=2.77-3.25$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in the use of assistive technology. Responses varied significantly by school region ($z=-7.82, df=2, p<.05$), with a small effect size (0.44). Kgatleng region teachers exhibited more agreement ($M=3.25$) than South East region teachers ($M=2.77$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in the use of assistive technology.

Participants tended to agree or agreed ($M=2.64-3.03$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in orientation and mobility skills. Responses differed significantly by school region ($z=-$

Table 41

Mann Whitney U Analysis for Respondents' Beliefs About Effective Transition Planning

Strategies for Students with Visual Impairments by School Region

	Kgatleg Region (n=474)			South East Region (n=712)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Training students in self-determination skills	439	2.95	0.95	621	2.62	1.03	2	-5.27	0.33
Training of students in the use of assistive technology	441	3.25	1.06	635	2.77	1.09	2	-7.82	0.44
Training of students in orientation and mobility skills	440	3.03	0.91	629	2.64	0.99	2	-6.66	0.41
Training of students in social skills	442	3.14	0.84	638	2.88	0.96	2	-4.57	0.29
Providing students with unpaid work experiences within the school	435	2.53	1.30	615	2.60	1.19	2	-0.75	0.06
Providing students with unpaid work experiences outside the school	432	2.09	1.02	617	2.35	1.05	2	-3.85	0.25
Providing students with paid work opportunities within the school	437	2.10	1.04	621	2.36	1.08	2	-3.77	0.24
Providing students with paid work opportunities outside the school	435	2.68	1.10	625	2.33	1.12	2	-4.88	0.32

Table 41 *continued**Mann Whitney U Analysis for Respondents' Beliefs About Effective Transition Planning**Strategies for Students with Visual Impairments by School Region*

	Kgatlang Region (n=474)			South East Region (n=712)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Training of students in academic skills	442	2.93	1.01	646	2.82	1.04	2	-1.56	0.11

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

6.66, $df=2$, $p < .05$), although the effect size (0.41) was small. Kgatleng region teachers agreed more ($M=3.03$) than South East region teachers ($M=2.64$) that the current school programs prepared students with visual impairments for successful post-school outcomes through training students in orientation and mobility skills. Participants tended to agree or agreed ($M=2.88$ -3.14) that the current school programs prepared students with visual impairments for successful post-school outcomes through training students in social skills. Responses varied significantly by school region ($z=-4.57$, $df=2$, $p < .05$), although the effect size (0.29) was small. Kgatleng region teachers showed more agreement ($M=3.14$) than South East region teachers ($M=2.88$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in social skills.

Participants tended to agree ($M=2.53$ -2.60) that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences within the school. Responses did not vary significantly by school regions on this item ($z=-.75$, $df=2$, $p > .05$).

Participants tended to disagree ($M=2.09-2.35$) that their school program prepared students for successful post-school outcomes through providing unpaid work experiences outside the school. Responses differed significantly between school region on this item ($z=-3.85$, $df=2$, $p<.05$), with a small effect size (0.25). Kgatleng region teachers agreed less ($M=2.09$) than South East region teachers ($M=2.35$) that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences outside the school.

Participants tended to disagree ($M=2.10-2.36$) that school programs prepared students for successful post-school outcomes through providing students with paid work opportunities within the school. Responses differed significantly by school region on this item ($z=-3.77$, $df=2$, $p<.05$), with a small effect size (0.24). Kgatleng region teachers agreed less ($M=2.10$) than South East region teachers ($M=2.36$) that their school program prepared students for successful post-school outcomes through providing paid work opportunities within the school. Again, participants tended to disagree or tended to agree ($M=2.33-2.68$) that school programs prepared students for successful post-school outcomes through providing students with paid work opportunities outside the school. Respondents differed significantly by school region ($z=-4.88$, $df=2$, $p<.05$), with a small effect size (0.32). South East region teachers agreed less ($M=2.33$) than Kgatleng region teachers ($M=2.68$) that their school program prepared students for successful post-school outcomes through providing paid work opportunities outside the school. Participants tended to agree ($M=2.82-2.93$) that their current school program prepared students for successful post-school outcomes through training of students in academic skills. No significant difference between teachers by school region were found ($z=-1.56$, $df=2$, $p>.05$). Overall, participants in this study agreed that their current school programs prepared students with visual impairments

for successful post-school outcomes through providing students with vocational instruction ($M=2.99$).

Table 42 presents results from Kruskal-Wallis tests conducted by teacher position on question 54 (junior and senior secondary schools) to determine statistical differences in participants' beliefs about the aforementioned effective transition planning strategies for students with visual impairments. General education teachers, special education teachers, and guidance and counseling teachers tended to agree or agreed ($M=2.58-3.06$) that the current school program prepared students with visual impairments for successful post-school outcomes through providing students with vocational instruction. Responses differed significantly by position group ($\chi^2= 27.27$, $df=2$, $p<.05$), with a small effect size (0.17). Results from a Mann Whitney U

Table 42

Kruskal-Wallis Analysis for Junior and Senior Secondary Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by Teacher Position

	General Education Teacher ($n=875$)			Special Education Teacher ($n=80$)			Guidance and Counseling Teacher ($n=73$)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Providing students with vocational instruction	786	3.06	1.15	73	2.58	1.05	67	2.60	0.95	2	27.27	0.17

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

post hoc test demonstrated that general education teachers varied significantly from special education and guidance and counseling teachers. General education teachers agreed more ($M=3.06$) than special education teachers ($M=2.58$) that their current school program prepared students for successful post-school outcomes through providing vocational instruction ($z=-3.87$, $p<.01$). Also, general education teachers ($M=3.06$) showed more agreement than guidance and counseling teachers ($M=2.60$) on this item ($z=-3.88$, $p<.01$).

Table 43 presents results from a Mann Whitney U test conducted by school type on question 54 (junior and senior secondary schools) to determine statistical differences in participants' beliefs about the provision of vocational instruction to students with visual impairments. Junior secondary and senior secondary teachers tended to agree or agreed

Table 43

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Type

	Junior Secondary School ($n=770$)			Senior Secondary School ($n=258$)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Providing students with vocational instruction	687	2.94	1.17	239	3.14	1.03	2	-2.03	0.18

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

($M=2.94-3.14$) that the current school program prepared students with visual impairments for successful post-school outcomes through providing students with vocational instruction.

Responses differed significantly by school type ($z=-2.03$, $df=2$, $p<.05$), with senior secondary teachers agreeing more ($M=3.14$) than junior secondary teachers ($M=2.94$) that their current school program prepared students for successful post-school outcomes through providing vocational instruction.

Table 44 presents results from a Mann Whitney U test conducted by school region on question 54 (junior and senior secondary schools) to determine statistical differences in participants' beliefs about the provision of vocational instruction to students with visual impairments. Kgatleng region teachers and South East region teachers tended to agree or agreed

Table 44

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Region

	Kgatlang Region ($n=407$)			South East Region ($n=621$)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Providing students with vocational instruction	381	3.39	0.99	545	2.71	1.15	2	9.44	0.63

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

($M=2.71-3.39$) that the current school program prepared students with visual impairments for successful post-school outcomes through providing students with vocational instruction.

Respondents differed significantly by ($z=-9.44$, $df=2$, $p<.05$), with a moderate effect size (0.63).

Kgatlang region teachers agreed more ($M=3.39$) than South East region teachers ($M=2.71$) that

their current school program prepared students for successful post-school outcomes through providing vocational instruction.

Overall, participants in this study agreed that their current school program prepared students with visual impairments for successful post-school outcomes through training students in employment skills ($M=3.10$). Table 45 presents results from a Mann Whitney U test conducted on responses to question 58 (vocational schools) to determine statistical differences in participants' beliefs about the training of students with visual impairments in employment skills by school region. Kgatleng region teachers and South East region teachers tended to agree or Table 45

Mann Whitney U Analysis for Vocational School Respondents' Beliefs About Effective Transition Planning Strategies for Students with Visual Impairments by School Region

	Kgatlang Region ($n=67$)			South East Region ($n=91$)					
<i>I believe the current school program prepares students with visual impairments for successful post-school outcomes through the following:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Training students in employment skills	54	2.70	1.09	77	3.38	0.69	2	3.61	0.77

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

agreed ($M=2.70-3.38$) that the current school program prepared students with visual impairments for successful post-school outcomes through training students in employment skills. Responses varied significantly by school region ($z=-3.61$, $df=2$, $p<.05$), with a moderate effect size (0.77). South East region teachers agreed more ($M=3.38$) than Kgatleng region teachers

($M=2.70$) that their current school program prepared students for successful post-school outcomes through training students in employment skills.

Participants' "Do Not Know" Responses on Coursework Related to Senior Secondary School Participation

The third research question further examined whether the coursework offered by secondary and vocational schools prepared students with visual impairments to transition successfully to senior secondary education, postsecondary education, vocational and technical training, and employment. Table 46 presents summary statistics by position for participants who answered "Do Not Know" to questions 56 to 62 (junior secondary schools). Percentages of participants who indicated "Do Not Know" as to whether the instructional courses in math, science, English language, Setswana language, social studies, agriculture, and optional subjects prepared students well for participation in senior secondary education are presented in Table 46 by position group. Ninety-three (93) general education teachers (14.0%) answered "Do Not Know" as to whether they believed that math instruction prepared students with visual impairments well for participation in senior secondary education. Ninety-four (94) general education teachers (14.2%) answered "Do Not Know" as to whether they believed that science instruction prepared students with visual impairments well for participation in senior secondary education. Another 94 participants (14.2%) answered "Do Not Know" as to whether they believed English language instruction prepared students well for senior secondary participation. Regarding whether participants believed that Setswana language instruction prepared students well for senior secondary participation, 99 general education teachers (15.0%) selected "Do Not Know." Additionally, 97 general education teachers (14.7%) selected "Do Not Know" regarding instruction in social studies. Ninety-seven (97) participants (14.7%) responded "Do Not Know"

Table 46

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Senior Secondary School Participation by Teacher Position (Junior Secondary School)

	General Education Teacher (n=662)		Special Education Teacher (n=57)		Guidance and Counseling Teacher (n=51)		Total (N=770)	
<i>I believe the following subjects prepare students with visual impairments well for senior secondary education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	93	14.0	6	10.5	9	17.6	108	14.0
Science	94	14.2	6	10.5	9	17.6	109	14.2
English Language	94	14.2	6	10.5	9	17.6	109	14.2
Setswana Language	99	15.0	6	10.5	10	19.6	115	14.9
Social Studies	97	14.7	6	10.5	10	19.6	113	14.7
Agriculture	97	14.7	6	10.5	10	19.6	113	14.7
Optional Subjects	79	11.9	3	5.3	5	9.8	87	11.3

Note. Percentages represent data reported by category and totals.

concerning whether instruction in agriculture prepared students well for senior secondary participation. When asked if optional subjects prepared students with visual impairments for participation in senior secondary education, 79 general education teachers (11.9%) answered “Do Not Know.”

Six (6) special education teachers (10.5%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in

senior secondary education. Six (6) special education teachers (10.5%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in senior secondary education. Another 6 participants (10.5%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for senior secondary participation. Regarding whether participants believed that Setswana language instruction prepared students well for senior secondary participation, six special education teachers (10.5%) selected “Do Not Know.” Again, six special education teachers (10.5%) selected “Do Not Know,” this time regarding instruction in social studies. Six (6) participants (10.5%) responded “Do Not Know” concerning whether instruction in agriculture prepared students well for senior secondary participation. When asked if optional subjects prepared students with visual impairments for participation in senior secondary education, three special education teachers (5.3%) answered “Do Not Know.”

Moreover, nine guidance and counseling teachers (17.6%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in senior secondary education. Nine (9) guidance and counseling teachers (17.6%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in senior secondary education. Another nine participants (17.6%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for senior secondary participation. Regarding whether participants believed that Setswana language instruction prepared students well for senior secondary participation, 10 guidance and counseling teachers (19.6%) selected “Do Not Know.” Ten 10 guidance and counseling teachers (19.6%) also selected “Do Not Know” regarding instruction in social studies. Ten (10) participants (19.6%) responded “Do Not Know”

concerning whether instruction in agriculture prepared students well for senior secondary participation. When asked if optional subjects prepared students with visual impairments for participation in senior secondary education, five guidance and counseling teachers (9.8%) answered “Do Not Know.”

Overall, fewer than 25% of participants answered “Do Not Know” for questions about instruction on specific subjects. The “Do Not Know” responses ranged from 5.3% to 19.6%. These percentages support the conclusion that participants knew whether the instructional courses prepared students with visual impairments well for participation in senior secondary education.

Table 47 displays participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in senior secondary education by school region. Thirty-six (36) Kgatleng region teachers (12.3%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in senior secondary education. Thirty-six (36) Kgatleng region teachers (12.3%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in senior secondary education. Another 36 participants (12.3%) responded “Do Not Know” as to whether they believed English language instruction prepared students well for senior secondary participation. Regarding whether participants believed that Setswana language instruction prepared students well for senior secondary participation, 37 Kgatleng region teachers (12.6%) selected “Do Not Know.” Furthermore, 35 Kgatleng region teachers (11.9%) selected “Do Not Know” regarding instruction in social studies. Thirty-six (36) participants (12.3%) responded “Do Not Know” concerning whether instruction in agriculture prepared students well for senior

secondary participation. When asked if optional subjects prepared students with visual impairments for participation in senior secondary education, 26 Kgatleng region teachers (8.9%) answered “Do Not Know.”

Seventy-two (72) South East region teachers (15.1%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in senior secondary education. Seventy-three (73) South East region teachers (15.3%) answered “Do Not Know” as to whether they believed that science instruction prepared

Table 47

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Senior Secondary School Participation by School Region (Junior Secondary School)

	Kgatlang Region (n=293)		South East Region (n=477)		Total (N=770)	
<i>I believe the following subjects prepare students with visual impairments well for senior secondary education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	36	12.3	72	15.1	108	14.0
Science	36	12.3	73	15.3	109	14.2
English Language	36	12.3	73	13.3	109	14.2
Setswana Language	37	12.6	78	16.4	115	14.9
Social Studies	35	11.9	78	16.4	113	14.7
Agriculture	36	12.3	77	16.1	113	14.7
Optional Subjects	26	8.9	61	12.8	87	11.3

Note. Percentages represent data reported by category and totals.

students with visual impairments well for participation in senior secondary education. Another 73 participants (15.3%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for senior secondary participation. Regarding whether participants believed that Setswana language instruction prepared students well for senior secondary participation, 78 South East region teachers (16.4%) selected “Do Not Know.” Further, 78 South East region teachers (16.4%) selected “Do Not Know” regarding instruction in social studies. Seventy-seven (77) participants (16.1%) responded “Do Not Know” concerning whether instruction in agriculture prepared students well for senior secondary participation. When asked if optional subjects prepared students with visual impairments for participation in senior secondary education, 61 South East region teachers (12.8%) answered “Do Not Know.”

Percentages of “Do Not Know” responses to this set of questions, sorted by region, ranged from 8.9% to 16.4% per individual statement. This did not meet the 25% benchmark for professional development and awareness needs, suggesting that participants knew whether the instructional courses prepared students with visual impairments well for participation in senior secondary education.

Participants’ Differences on Coursework Related to Senior Secondary School Participation

Overall, participants tended to agree or agreed that specific coursework prepared students with visual impairments well for participation in senior secondary education. Participants tended to agree that math instruction prepared students with visual impairments well for participation in senior secondary education ($M=2.71$). Participants also tended to agree that science instruction prepared students well for participation in senior secondary education ($M=2.77$). Participants in this study tended to agree that English language instruction prepared students well for senior secondary education participation ($M=2.81$). Again, participants tended to agree that Setswana

language instruction prepared students with visual impairments well for senior secondary education participation ($M=2.78$). Regarding social studies, participants tended to agree that this subject area prepared students well for senior secondary participation ($M=2.75$). Moreover, participants tended to agree that agriculture instruction prepared students with visual impairments well for participation in senior secondary education ($M=2.81$). Differing slightly, participants also agreed that optional subjects prepared students well for senior secondary education participation ($M=3.41$).

Table 48 presents results of Kruskal-Wallis tests conducted by teacher position on questions 56 to 62 (junior secondary schools) to determine statistical differences in participants' beliefs about coursework related to senior secondary participation for students with visual impairments. General education teachers, special education teachers, and guidance and counseling teachers tended to disagree, tended to agree, or agreed ($M=2.31$ - 3.00) that math instruction prepared students with visual impairments well for participation in senior secondary education. Responses varied significantly by teacher position ($\chi^2=7.81$, $df=2$, $p<.05$), with a small effect size (0.11). Results from a Mann Whitney U test support the conclusion that special education teachers differed significantly from general education and guidance and counseling teachers. General education teachers' responses showed more agreement ($M=2.72$) than special education teachers' responses ($M=2.31$) with the statement that math instruction prepared students with visual impairments well for participation in senior secondary education ($z=-2.11$, $p<.05$). Guidance and counseling teachers ($M=3.00$) also showed more agreement than special education teachers ($M=2.31$) on this item ($z=-2.41$, $p<.05$). Participants tended to agree ($M=2.76$ - 2.90) that science instruction prepared students with visual impairments well for participation in

senior secondary education, with no significant differences by teacher position ($\chi^2 = .11$, $df=2$, $p>.05$).

Table 48

Kruskal-Wallis Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Senior Secondary School Participation by Teacher Position

	General Education Teacher (n=662)			Special Education Teacher (n=57)			Guidance and Counseling Teacher (n=51)					
<i>I believe the following subjects prepare students with visual impairments well for senior secondary education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Math	569	2.72	1.01	51	2.31	1.29	42	3.00	0.91	2	7.81	0.11
Science	568	2.76	1.00	51	2.76	1.11	42	2.90	0.48	2	0.11	0.01
English Language	568	2.82	1.00	51	2.88	1.09	42	2.60	0.99	2	3.69	0.07
Setswana Language	563	2.78	0.99	51	2.88	1.09	41	2.61	0.92	2	3.76	0.08
Social Studies	565	2.73	1.00	51	2.57	1.14	41	3.12	0.75	2	6.32	0.10
Agriculture	565	2.81	1.04	51	2.61	1.15	41	3.17	0.70	2	5.28	0.09
Optional Subjects	583	3.41	1.06	54	3.24	1.15	46	3.65	0.74	2	2.92	0.07

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Participants tended to agree ($M=2.60-2.88$) that English language instruction prepared students with visual impairments well for senior secondary education participation. Responses did not vary significantly by teacher position ($\chi^2 = 3.69$, $df=2$, $p>.05$). Moreover, participants

tended to agree ($M=2.61-2.88$) that Setswana language instruction prepared students with visual impairments well for senior secondary education participation. Responses did not vary significantly by teacher position ($\chi^2= 3.76, df=2, p>.05$).

Regarding the statement that social studies instruction prepared students with visual impairments well for participation in senior secondary education, participants tended to agree or agreed ($M=2.51-3.12$). Respondents differed significantly between position groups on this item ($\chi^2= 6.32, df=2, p<.05$), with a small effect size (0.10). Results from a Mann Whitney U post hoc test supported the conclusion that guidance and counseling teachers varied significantly from general education and special education teachers. Guidance and counseling teachers tended to agree more ($M=3.12$) than general education teachers ($M=2.73$) that social studies instruction prepared students well for participation in senior secondary education ($z=-2.23, p<.05$).

Additionally, guidance and counseling teachers ($M=3.12$) agreed more than special education teachers ($M=2.57$) on this item ($z=-2.36, p<.05$). Participants tended to agree or agreed ($M=2.61-3.17$) that agriculture instruction prepared students with visual impairments well for senior secondary education participation, with no significant differences by teacher position ($\chi^2= 5.28, df=2, p>.05$). Again, participants agreed ($M=3.24-3.65$) that optional subjects prepared students with visual impairments well for senior secondary education participation, but with no significant difference by teacher position ($\chi^2= 2.92, df=2, p>.05$).

Table 49 presents results from a Mann Whitney U test conducted by school region on questions 56 to 62 (junior secondary schools) to determine statistical differences in participants' beliefs about coursework related to senior secondary participation for students with visual impairments. Kgatleng region teachers and South East region teachers tended to agree ($M=2.60-2.87$) that math instruction prepared students with visual impairments well for participation in

senior secondary education. Respondents differed significantly by school region ($z=-2.76$, $df=2$, $p<.05$), with a small effect size (0.26). Kgatleng region teachers tended to agree more ($M=2.87$) than South East region teachers ($M=2.60$) that math instruction prepared students with visual impairments well for participation in senior secondary education.

Participants tended to agree or agreed ($M=2.62-3.01$) that science instruction prepared students with visual impairments well for participation in senior secondary education. Responses varied significantly by school region ($z=-4.38$, $df=2$, $p<.05$), with a small effect size (0.40). Kgatleng region teachers agreed more ($M=3.01$) than South East region teachers ($M=2.62$) that science instruction prepared students with visual impairments well for participation in senior secondary education. Participants tended to agree or agreed ($M=2.69-3.00$) that English language instruction prepared students with visual impairments well for senior secondary education participation. Respondents differed significantly by school region ($z=-2.97$, $df=2$, $p<.05$), with a small effect size (0.31). Kgatleng region teachers showed more agreement ($M=3.00$) than South East region teachers ($M=2.69$) that English language instruction prepared students with visual impairments well for participation in senior secondary education.

Moreover, participants tended to agree ($M=2.66-2.96$) that Setswana language instruction prepared students with visual impairments well for senior secondary education participation. Responses differed significantly by school region ($z=-3.20$, $df=2$, $p<.05$) and the effect size (0.31) was small. Kgatleng region teachers tended to agree more ($M=2.96$) than South East region teachers ($M=2.66$) that Setswana language instruction prepared students with visual impairments well for participation in senior secondary education. Regarding the statement that social studies instruction prepared students with visual impairments well for participation in senior secondary education, participants tended to agree ($M=2.62-2.95$). Responses differed

significantly by school region ($z=-3.66$, $df=2$, $p<.05$), with a small effect size (0.33). Kgatleng region teachers tended to agree more ($M=2.95$) than South East region teachers ($M=2.62$) that social studies instruction prepared students with visual impairments well for participation in senior secondary education.

Participants tended to agree ($M=2.71-2.97$) that agriculture instruction prepared students with visual impairments well for senior secondary education participation. Responses varied significantly by school region ($z=-2.26$, $df=2$, $p<.05$) with a small effect size (0.25) found.

Table 49

Mann Whitney U Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Senior Secondary School Participation by School Region

	Kgatlang Region ($n=293$)			South East Region ($n=477$)					
<i>I believe the following subjects prepare students with visual impairments well for senior secondary education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	257	2.87	0.89	405	2.60	1.10	2	-2.76	0.26
Science	257	3.01	0.78	404	2.62	1.07	2	-4.38	0.40
English Language	257	3.00	0.80	404	2.69	1.11	2	-2.97	0.31
Setswana Language	256	2.96	0.80	399	2.66	1.08	2	-3.20	0.31
Social Studies	258	2.95	0.84	399	2.62	1.08	2	-3.66	0.33
Agriculture	257	2.97	0.84	400	2.71	1.13	2	-2.26	0.25
Optional Subjects	267	3.69	0.80	416	3.23	1.15	2	-5.84	0.45

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Kgatlang region teachers tended to agree more ($M=2.97$) than South East region teachers ($M=2.71$) that agriculture instruction prepared students with visual impairments well for participation in senior secondary education. Again, participants agreed ($M=3.23-3.69$) that optional subjects prepared students with visual impairments well for senior secondary education participation. Responses differed significantly by school region ($z=-5.84$, $df=2$, $p<.05$) with a small effect size (0.45). Kgatleng region teachers showed more agreement ($M=3.69$) than South East region teachers ($M=3.24$) that optional subjects prepared students with visual impairments well for participation in senior secondary education.

Participants' "Do Not Know" Responses on Senior Secondary Coursework Related to Postsecondary Education Participation

Table 50 provides summary statistics by position as well as coursework for participants who chose "Do Not Know" in response to questions 56 to 60 (senior secondary schools). Twenty (20) general education teachers (9.4%) answered "Do Not Know" as to whether they believed that math instruction prepared students with visual impairments well for participation in postsecondary education. Twenty-six (26) general education teachers (12.2%) answered "Do Not Know" as to whether they believed that science instruction prepared students with visual impairments well for participation in postsecondary education. Another 20 participants (9.4%) answered "Do Not Know" as to whether they believed English language instruction prepared students well for postsecondary participation. Regarding whether participants believed that Setswana language instruction prepared students well for postsecondary participation, 38 general education teachers (17.8%) selected "Do Not Know." When asked if optional subjects prepared students with visual impairments for participation in postsecondary education, 36 general education teachers (16.9%) answered "Do Not Know."

None of the special education teachers (0.0%) answered “Do Not Know” as to whether they believed that instruction in math, science, English language, and Setswana language prepared students with visual impairments well for participation in postsecondary education. When asked if optional subjects prepared students with visual impairments for participation in postsecondary education, only one special education teacher (4.3%) answered “Do Not Know.” Moreover, no guidance and counseling teachers (0.0%) answered “Do Not Know” as to whether

Table 50

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Postsecondary School Participation by Teacher Position (Senior Secondary School)

	General Education Teacher (n=213)		Special Education Teacher (n=23)		Guidance and Counseling Teacher (n=22)		Total (N=258)	
<i>I believe the following subjects prepare students with visual impairments well for postsecondary education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	20	9.4	0	0.0	0	0.0	20	7.8
Science	26	12.2	0	0.0	1	4.5	27	10.5
English Language	20	9.4	0	0.0	2	9.1	22	8.5
Setswana Language	38	17.8	0	0.0	3	13.6	41	15.9
Optional Subjects	36	16.9	1	4.3	2	9.1	39	15.1

Note. Percentages represent data reported by category and totals.

they believed that math instruction prepared students with visual impairments well for participation in postsecondary education. One (1) guidance and counseling teacher (4.5%) answered “Do Not Know” to whether she/he believed that science instruction prepared students

with visual impairments well for participation in postsecondary education. Another two participants (9.1%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for postsecondary participation. Regarding whether participants believed that Setswana language instruction prepared students well for postsecondary participation, three guidance and counseling teachers (13.6%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in postsecondary education, two guidance and counseling teachers (9.1%) answered “Do Not Know.”

Overall, percentages of “Do Not Know” responses to questions about each subject’s ability to prepare students for postsecondary education, sorted by teacher position, ranged from 0.0% to 17.8%. This did not meet the 25% cut-off point indicating a need for professional development and awareness. Thus we can conclude that participants knew whether the instructional courses prepared students with visual impairments well for participation in postsecondary education.

Table 51 displays summary statistics by school region for participants’ “Do Not Know” responses to questions about whether instructional coursework prepared students with visual impairments well for participation in postsecondary education. None of the Kgatleng region teachers (0.0%) answered “Do Not Know” as to whether they believed that instruction in math, science, English language, and Setswana language prepared students with visual impairments well for participation in postsecondary education. When asked if optional subjects prepared students with visual impairments for participation in postsecondary education, one Kgatleng region teacher (0.9%) answered “Do Not Know.” Twenty (20) South East region teachers (13.9%) answered “Do Not Know” as to whether they believed that math instruction prepared

students with visual impairments well for participation in postsecondary education. Twenty-seven (27) South East region teachers (18.8%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in postsecondary education. Another 22 participants (15.3%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for postsecondary

Table 51

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Postsecondary School Participation by School Region (Senior Secondary School)

	Kgatleng Region (n=114)		South East Region (n=144)		Total (N=258)	
<i>I believe the following subjects prepare students with visual impairments well for postsecondary education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	0	0.0	20	13.9	20	7.8
Science	0	0.0	27	18.8	27	10.5
English Language	0	0.0	22	15.3	22	8.5
Setswana Language	0	0.0	41	28.5	41	15.9
Optional Subjects	1	0.9	38	26.4	39	15.1

Note. Percentages represent data reported by category and totals.

participation. Regarding whether participants believed that Setswana language instruction prepared students well for postsecondary participation, 41 South East region teachers (28.5%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in postsecondary education, 38 South East region teachers (26.4%) answered “Do Not Know.”

Percentages by region of “Do Not Know” responses to this set of questions ranged from 0.0% to 28.5% per subject. “Do Not Know” responses to the questions regarding Setswana language instruction and optional subjects in the South East region exceeded the 25% benchmark indicating professional development and awareness needs. This suggests that participants did not know whether these two instructional courses prepared students with visual impairments well for participation in postsecondary education.

Participants’ Differences on Senior Secondary Coursework Related to Postsecondary Education Participation

Overall, participants tended to disagree or disagreed that senior secondary coursework prepared students with visual impairments for postsecondary education. Participants in this study tended to disagree that math instruction prepared students with visual impairments well for participation in postsecondary education ($M=2.15$). Participants also tended to disagree that science instruction prepared students well for participation in postsecondary education ($M=2.10$). Additionally, participants tended to disagree that English language instruction prepared students well for postsecondary education participation ($M=2.33$). Again, participants tended to disagree that Setswana language instruction prepared students with visual impairments well for postsecondary education participation ($M=2.15$). Regarding optional subjects, participants tended to disagree that these subjects prepared students well for postsecondary participation ($M=2.17$).

Table 52 presents results of Kruskal-Wallis tests conducted by teacher position on questions 56 to 60 (senior secondary schools) to determine statistical differences in participants’ beliefs about coursework related to postsecondary participation for students with visual impairments. General education teachers, special education teachers, and guidance and counseling teachers disagreed, tended to agree, or agreed ($M=1.99-3.14$) that math instruction

prepared students with visual impairments well for participation in postsecondary education. Responses varied significantly by teacher position ($\chi^2=20.14$, $df=2$, $p<.05$), with a small effect size (0.29). Results of a Mann Whitney *U* test comparing position groups support a significant difference between general education and guidance and counseling teachers. General education teachers agreed less ($M=1.99$) than guidance and counseling teachers ($M=3.14$) that math instruction prepared students with visual impairments well for participation in postsecondary education ($z=-4.36$, $p<.01$).

Participants disagreed, tended to agree, or agreed ($M=1.90$ - 3.00) that science instruction prepared students with visual impairments well for participation in postsecondary education. Respondents differed significantly by teacher position ($\chi^2=33.14$, $df=2$, $p<.05$), with a small effect size (0.38). Results from a Mann Whitney *U* test comparing position groups supported the conclusion that general education teachers differed significantly from special education and guidance and counseling teachers. General education teachers showed less agreement ($M=1.90$) than special education teachers ($M=2.87$) that science instruction prepared students with visual impairments well for participation in postsecondary education ($z=-4.29$, $p<.01$). General education teachers ($M=1.90$) also showed less agreement than guidance and counseling teachers ($M=3.00$) on this item ($z=-4.40$, $p<.01$). Participants tended to disagree, tended to agree, or agreed ($M=2.07$ - 3.83) that English language instruction prepared students with visual impairments well for postsecondary education participation. Responses differed significantly by teacher position ($\chi^2=51.45$, $df=2$, $p<.05$), with a small effect size (0.47). Results of a Mann Whitney *U* test comparing position groups support the conclusion that general education, special education, and guidance and counseling teachers differ significantly from each other on this item. General education teachers agree less ($M=2.07$) than special education teachers ($M=3.83$)

that English language instruction prepared students with visual impairments well for participation in postsecondary education ($z=-6.36, p<.01$). General education teachers ($M=2.07$) also showed less agreement than guidance and counseling teachers ($M=3.20$) on this item ($z=-3.93, p<.01$). Furthermore, special education teachers ($M=3.83$) showed more agreement than

Table 52

Kruskal-Wallis Analysis for Senior Secondary School Respondents' Beliefs About Coursework for Postsecondary School Participation by Teacher Position

	General Education Teacher ($n=213$)			Special Education Teacher ($n=23$)			Guidance and Counseling Teacher ($n=22$)					
<i>I believe the following subjects prepare students with visual impairments well for postsecondary education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Math	193	1.99	1.21	23	2.48	1.41	22	3.14	0.77	2	20.14	0.29
Science	187	1.90	1.15	23	2.87	1.01	21	3.00	0.71	2	33.14	0.38
English Language	193	2.07	1.18	23	3.83	0.39	20	3.20	0.89	2	51.45	0.47
Setswana Language	175	1.87	1.14	23	3.48	0.73	19	3.16	0.90	2	46.48	0.46
Optional Subjects	177	1.99	1.18	22	2.50	1.34	20	3.40	0.88	2	25.75	0.34

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

guidance and counseling teachers ($M=3.20$) on the same item ($z=-2.93, p<.01$).

Participants disagreed, tended to disagree, tended to agree, or agreed ($M=1.87$ - 3.48) that Setswana language instruction prepared students with visual impairments well for postsecondary

education participation. Respondents differed significantly by teacher position ($\chi^2=46.48$, $df=2$, $p<.05$) with a small effect size (0.46). Results from a Mann Whitney U test comparing position groups support the conclusion that general education teachers differed significantly from special education and guidance and counseling teachers. General education teachers agreed less ($M=1.87$) than special education teachers ($M=3.48$) that Setswana language instruction prepared students well for participation in postsecondary education ($z=-5.75$, $p<.01$). General education teachers ($M=1.87$) agreed less than guidance and counseling teachers ($M=3.16$) on this item ($z=-4.40$, $p<.01$). Regarding the statement that optional subjects prepared students with visual impairments well for participation in postsecondary education, participants disagreed, tended to disagree, tended to agree, or agreed ($M=1.99-3.40$). Responses varied significantly between position groups on this item ($\chi^2=25.75$, $df=2$, $p<.05$), with a small effect size (0.34). Results from a Mann Whitney U post hoc test supported that guidance and counseling teachers differed significantly from general education and special education teachers. General education teachers tended to agree less ($M=1.99$) than guidance and counseling teachers ($M=3.40$) that optional subjects prepared students well for participation in postsecondary education ($z=-4.96$, $p<.01$). Additionally, special education teachers ($M=2.50$) agreed less than guidance and counseling teachers ($M=3.40$) on this item ($z=-2.41$, $p<.05$).

Table 53 presents data from a Mann Whitney U test conducted by school region on questions 56 to 60 (senior secondary schools) to determine statistical differences in participants' beliefs about coursework related to postsecondary participation for students with visual impairments. Kgatleng region teachers and South East region teachers disagreed, tended to disagree, or tended to agree ($M=1.39-2.84$) that math instruction prepared students with visual impairments well for participation in postsecondary education. Responses differed significantly

by school region ($z=-9.39$, $df=2$, $p<.05$), with a small effect size (0.43). Kgatleng region teachers agreed less ($M=1.39$) than South East region teachers ($M=2.84$) that math instruction prepared students with visual impairments well for participation in postsecondary education.

Table 53

Mann Whitney U Analysis for Senior Secondary School Respondents' Beliefs About Coursework for Postsecondary School Participation by School Region

	Kgatlang Region ($n=114$)			South East Region ($n=144$)					
<i>I believe the following subjects prepare students with visual impairments well for postsecondary education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	114	1.39	0.90	124	2.84	1.11	2	-9.39	0.43
Science	114	1.40	0.87	117	2.78	1.03	2	-9.43	0.45
English Language	114	1.54	1.05	122	3.08	0.91	2	-9.54	0.57
Setswana Language	114	1.53	1.03	103	2.84	1.04	2	-8.41	0.27
Optional Subjects	113	1.42	0.99	106	2.97	0.95	2	-9.54	0.60

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Participants disagreed, tended to disagree, or tended to agree ($M=1.40$ - 2.78) that science instruction prepared students with visual impairments well for participation in postsecondary education. Respondents' answers differed significantly by school region ($z=-9.43$, $df=2$, $p<.05$) with a small effect size (0.45). Kgatleng region teachers showed less agreement ($M=1.40$) than South East region teachers ($M=2.78$) that science instruction prepared students with visual impairments well for participation in postsecondary education. Participants disagreed, tended to

disagree, tended to agree, or agreed ($M=1.54-3.08$) that English language instruction prepared students with visual impairments well for postsecondary education participation. Responses varied significantly by school region ($z=-9.54$, $df=2$, $p<.05$), with a moderate effect size (0.57). Kgatleng region teachers showed less agreement ($M=1.54$) than South East region teachers ($M=3.08$) that English language instruction prepared students with visual impairments well for participation in postsecondary education.

Moreover, participants disagreed, tended to disagree, or tended to agree ($M=1.53-2.84$) that Setswana language instruction prepared students with visual impairments well for postsecondary education participation. Responses differed significantly by school region ($z=-8.41$, $df=2$, $p<.05$), with a small effect size (0.27). Kgatleng region teachers tended to agree less ($M=1.53$) than South East region teachers ($M=2.84$) that Setswana language instruction prepared students with visual impairments well for participation in postsecondary education. Regarding optional subjects, participants disagreed, tended to disagree, or tended to agree ($M=1.42-2.97$) that these courses prepared students well for postsecondary education participation.

Respondents' answers differed significantly by school region ($z=-9.54$, $df=2$, $p<.05$), with a moderate effect size (0.60). Kgatleng region teachers tended to agree less ($M=1.42$) than South East region teachers ($M=2.97$) that optional subjects prepared students with visual impairments well for participation in postsecondary education.

Participants' "Do Not Know" Responses on Secondary Coursework Related to Employment Participation

Table 54 displays summary statistics by position group for participants' "Do Not Know" responses to questions about their beliefs on instructional coursework aimed at preparing secondary school students with visual impairments well for participation in employment. The

five instructional courses were relevant to both junior and senior secondary schools. One hundred and thirteen (113) general education teachers (12.9%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. One hundred and eleven (111) general education teachers (12.7%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in employment. Another 108 participants (12.3%) answered “Do Not Know” to whether English language instruction prepared students well for employment participation. Regarding whether participants believed that Setswana language instruction prepared students well for employment participation, 110 general education teachers (12.6%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in employment, 128 general education teachers (14.6%) answered “Do Not Know.”

Eight (8) special education teachers (10.0%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. Eight (8) special education teachers (10.0%) answered “Do Not Know” as to whether science instruction prepared students with visual impairments well for participation in employment. Another seven participants (8.8%) answered “Do Not Know” when asked whether English language instruction prepared students well for employment participation. Regarding whether Setswana language instruction prepared students well for employment participation, seven special education teachers (8.8%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in employment, five special education teachers (6.3%) answered “Do Not Know.”

Moreover, 14 guidance and counseling teachers (19.2%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. Fourteen (14) guidance and counseling teachers (19.2%) answered “Do Not Know” as to whether science instruction prepared students with visual impairments

Table 54

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Employment

Participation by Teacher Position (Junior and Senior Secondary Schools)

	General Education Teacher (<i>n</i> =875)		Special Education Teacher (<i>n</i> =80)		Guidance and Counseling Teacher (<i>n</i> =73)		Total (<i>N</i> =1028)	
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	113	12.9	8	10.0	14	19.2	135	13.1
Science	111	12.7	8	10.0	14	19.2	133	12.9
English Language	108	12.3	7	8.8	14	19.2	129	12.5
Setswana Language	110	12.6	7	8.8	15	20.5	132	12.8
Optional Subjects	128	14.6	5	6.3	15	20.5	148	14.4

Note. Percentages represent data reported by category and totals.

well for participation in employment. Another 14 participants (19.2%) answered “Do Not Know” as to whether English language instruction prepared students well for employment participation. Regarding whether participants believed that Setswana language instruction prepared students well for employment participation, 15 guidance and counseling teachers (20.5%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for

participation in employment, 15 guidance and counseling teachers (20.5%) answered “Do Not Know.”

Percentages of “Do Not Know” responses to this set of questions, sorted by position type, ranged from 6.3% to 20.5%. The percentages did not meet or exceed the 25% threshold indicating the need for further professional development and awareness. This shows that participants were knowledgeable as to whether the five specified instructional courses prepared students with visual impairments well for participation in employment.

Table 55 provides summary statistics by school type of participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in employment. One hundred and five (105) junior secondary teachers (13.6%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. One hundred (100) junior secondary teachers (13.0%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in employment. Another 98 participants (12.7%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for employment participation. Regarding whether participants believed that Setswana language instruction prepared students well for employment participation, 105 junior secondary teachers (13.6%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in employment, 112 junior secondary teachers (14.5%) answered “Do Not Know.”

In addition, 30 senior secondary teachers (11.6%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for

participation in employment. Thirty-three (33) senior secondary teachers (12.8%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual

Table 55

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Employment

Participation by School Type (Junior and Senior Secondary Schools)

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Total (N=1028)	
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	105	13.6	30	11.6	135	13.1
Science	100	13.0	33	12.8	133	12.9
English Language	98	12.7	31	12.0	129	12.5
Setswana Language	105	13.6	27	10.5	132	12.8
Optional Subjects	112	14.5	36	14.0	148	14.4

Note. Percentages represent data reported by category and totals.

impairments well for participation in employment. Another 31 participants (12.0%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for employment participation. Regarding whether participants believed that Setswana language instruction prepared students well for employment participation, 27 senior secondary teachers (10.5%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in employment, 36 senior secondary teachers (14.0%) answered “Do Not Know.”

Overall, percentages of “Do Not Know” responses to this set of questions, sorted by position type, ranged from 10.5% to 14.5%. There was no “Do Not Know” response rate that met or exceeded the 25% threshold for professional development and awareness needs. This indicates that participants knew whether the five instructional courses offered at junior and senior secondary schools prepared students with visual impairments well for participation in employment.

Table 56 displays summary statistics by school region of participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in employment. Thirty-four (34) Kgatleng region teachers (8.4%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. Thirty-three (33) Kgatleng region teachers (8.1%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in employment. Another 32 participants (7.9%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for employment participation. Regarding whether participants believed that Setswana language instruction prepared students well for employment participation, 34 Kgatleng region teachers (8.4%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in employment, 36 Kgatleng region teachers (8.8%) answered “Do Not Know.”

Moreover, 101 South East region teachers (16.3%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. One hundred (100) South East region teachers (16.1%) answered “Do Not Know” as to whether they believed that science instruction prepared students with

visual impairments well for participation in employment. Another 97 participants (15.6%) answered “Do Not Know” as to whether they believed that English language instruction prepared

Table 56

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Employment

Participation by School Region (Junior and Senior Secondary Schools)

	Kgatleng Region (n=407)		South East Region (n=621)		Total (N=1028)	
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	34	8.4	101	16.3	135	13.1
Science	33	8.1	100	16.1	133	12.9
English Language	32	7.9	97	15.6	129	12.5
Setswana Language	34	8.4	98	15.8	132	12.8
Optional Subjects	36	8.8	112	18.0	148	14.4

Note. Percentages represent data reported by category and totals.

students well for employment participation. Regarding whether participants believed that Setswana language instruction prepared students well for employment participation, 98 South East region teachers (15.8%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in employment, 112 South East region teachers (18.0%) answered “Do Not Know.”

Overall, there were no statements with “Do Not Know” response percentages meeting or exceeding the 25% cut-off point that would indicate professional development and awareness needs. Percentages of “Do Not Know” responses ranged from 7.9-18.0%. These responses

indicate that participants knew whether the five instructional courses offered at junior and senior secondary school levels prepared students with visual impairments well for participation in employment.

Table 57 presents summary statistics by position group of participants' "Do Not Know" responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in employment. The two courses were relevant only for junior secondary schools. Eighty-eight (88) general education teachers (13.3%) selected "Do Not Know" regarding whether instruction in social studies prepared students with visual impairments well for employment participation. Additionally, 88 general education teachers (13.3%) responded "Do Not Know" concerning whether instruction in agriculture prepared students well for employment participation. Eight (8) special education teachers (14.0%) selected "Do Not Know" regarding whether they believed that instruction in social studies prepared students with visual impairments for participation in employment. Furthermore, eight special education teachers (14.0%) responded "Do Not Know" concerning whether instruction in agriculture prepared students well for employment participation. Moreover, nine guidance and counseling teachers (17.6%) selected "Do Not Know" regarding whether they believed that instruction in social studies prepared students with visual impairments for participation in employment. Nine (9) guidance and counseling teachers (17.6%) responded "Do Not Know" concerning whether instruction in agriculture prepared students well for employment participation.

Overall, percentages of "Do Not Know" responses ranged from 13.3-17.6%. The "Do Not Know" percentages sorted by position group did not meet the 25% cut-off point that would indicate professional development and awareness needs. This supports the conclusion that

Table 57

*Percentages of “Do Not Know” Responses of Beliefs About Coursework for Employment**Participation by Teacher Position (Junior Secondary School)*

	General Education Teacher (n=662)		Special Education Teacher (n=57)		Guidance and Counseling Teacher (n=51)		Total (N=770)	
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Social Studies	88	13.3	8	14.0	9	17.6	105	13.6
Agriculture	88	13.3	8	14.0	9	17.6	105	13.6

Note. Percentages represent data reported by category and totals.

had knowledge of whether instruction in social studies and agriculture prepared students with visual impairments well for participation in employment.

Table 58 presents summary statistics by school region of participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in employment. Thirty-two (32) Kgatleng region teachers (10.9%) selected “Do Not Know” regarding whether they believed that instruction in social studies prepared students with visual impairments well for employment participation. Additionally, 32 Kgatleng region teachers (10.9%) responded “Do Not Know” concerning whether instruction in agriculture prepared students well for employment participation. Moreover, 73 South East region teachers (15.3%) selected “Do Not Know” regarding whether instruction in social studies prepared students with visual impairments well for employment participation. Furthermore, 73 South East region teachers (15.3%) responded

“Do Not Know” concerning whether instruction in agriculture prepared students well for employment participation.

Table 58

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Employment Participation by School Region (Junior Secondary School)

	Kgatleng Region (<i>n</i> =293)		South East Region (<i>n</i> =477)		Total (<i>N</i> =770)	
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Social Studies	32	10.9	73	15.3	105	13.6
Agriculture	32	10.9	73	15.3	105	13.6

Note. Percentages represent data reported by category and totals.

The percentage of “Do Not Know” responses to this set of questions ranged from 10.9-15.3%. No group of participants sorted by school region met or exceeded the 25% “Do Not Know” response rate that would indicate a need for professional development and awareness. This supports the conclusion that participants knew whether social studies and agriculture instruction prepared students with visual impairments well for participation in employment.

Participants’ Differences on Secondary Coursework Related to Employment Participation

Overall, participants tended to disagree or tended to agree concerning their beliefs on coursework related to employment participation for secondary school students with visual impairments. Participants tended to agree that math instruction prepared students with visual impairments well for participation in employment ($M=2.51$). Participants also tended to agree that science instruction prepared students well for participation in employment ($M=2.55$).

Additionally, participants tended to agree that English language instruction prepared students well for employment participation ($M=2.63$). On the other hand, participants tended to disagree that Setswana language instruction prepared students with visual impairments well for employment participation ($M=2.42$). Regarding optional subjects, participants tended to agree that these subjects prepared students well for employment participation ($M=2.94$).

Table 59 presents results from Kruskal-Wallis tests conducted by teacher position on questions 63 to 66 and 69 (junior secondary schools), as well as questions 61 to 65 (senior secondary schools) to determine statistical differences in participants' beliefs about coursework related to employment participation for students with visual impairments. General education teachers, special education teachers, and guidance and counseling teachers tended to disagree or tended to agree ($M=2.47$ - 2.86) that math instruction prepared students with visual impairments well for participation in employment. Responses varied significantly by teacher position ($\chi^2=6.84$, $df=2$, $p<.05$). Results from a Mann Whitney U test comparing position groups support a significant difference between general education and guidance and counseling teachers. Guidance and counseling teachers tended to agree more ($M=2.86$) than general education teachers ($M=2.49$) that math instruction prepared students with visual impairments well for participation in employment ($z=-2.65$, $p<.01$).

Participants tended to agree ($M=2.52$ - 2.73) that science instruction prepared students with visual impairments well for participation in employment. Responses did not vary significantly by teacher position ($\chi^2=2.00$, $df=2$, $p>.05$). Participants tended to agree or agreed ($M=2.58$ - 3.08) that English language instruction prepared students with visual impairments well for employment participation. Responses differed significantly by teacher position ($\chi^2=14.16$, $df=2$, $p<.05$), with a small effect size (0.13). Results from a Mann Whitney U test comparing position

Table 59

Kruskal-Wallis Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Employment Participation by Teacher Position

	General Education Teacher (n=875)			Special Education Teacher (n=80)			Guidance and Counseling Teacher (n=73)					
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Math	762	2.49	1.02	72	2.47	1.21	59	2.86	0.88	2	6.84	0.09
Science	764	2.52	1.02	72	2.69	0.90	59	2.73	0.55	2	2.00	0.05
English Language	767	2.58	1.05	73	2.82	0.99	59	3.08	0.77	2	14.16	0.13
Setswana Language	765	2.40	1.09	73	2.47	1.17	58	2.59	0.97	2	1.38	0.04
Optional Subjects	747	2.89	1.25	75	2.95	1.10	58	3.53	0.96	2	17.47	0.14

*Note.** $p < .05$. ** $p < .01$. *** $p < .001$.

groups support a significant difference between general education and guidance and counseling teachers. Guidance and counseling teachers agreed more ($M=3.08$) than general education teachers ($M=2.58$) that English language instruction prepared students with visual impairments well for participation in employment ($z=-3.44$, $p < .01$).

Moreover, participants tended to disagree or tended to agree ($M=2.40$ - 2.59) that Setswana language instruction prepared students with visual impairments well for employment participation. Responses did not vary significantly by teacher position ($\chi^2 = 1.38$, $df=2$, $p > .05$).

Regarding the statement that optional subjects prepared students with visual impairments well for participation in employment, participants tended to agree or agreed ($M=2.89-3.53$).

Responses varied significantly between position groups on this item ($\chi^2=17.47$, $df=2$, $p<.05$), with a small effect size (0.14). Results from a Mann Whitney U post hoc test demonstrated that guidance and counseling teachers differed significantly from general education and special education teachers. Guidance and counseling teachers agreed more ($M=3.53$) than general education teachers ($M=2.89$) that optional subjects prepared students well for participation in employment ($z=-4.14$, $p<.01$). Also, guidance and counseling teachers ($M=3.53$) agreed more than special education teachers ($M=2.95$) on this item ($z=-3.44$, $p<.01$).

Table 60 presents summary statistics by school type from a Mann Whitney U test conducted on responses to questions 63 to 66 and 69 (junior secondary schools), as well as questions 61 to 65 (senior secondary schools) to determine statistical differences in participants' beliefs about coursework related to employment participation for students with visual impairments. Junior secondary and senior secondary teachers tended to disagree or tended to agree ($M=2.03-2.67$) that math instruction prepared students with visual impairments well for participation in employment. Respondents' answers differed significantly by school type ($z=-7.89$, $df=2$, $p<.05$), with a moderate effect size (0.65). Junior secondary teachers tended to agree more ($M=2.63$) than senior secondary teachers ($M=2.03$) that math instruction prepared students with visual impairments well for participation in employment.

Participants tended to disagree or tended to agree ($M=2.14-2.69$) that science instruction prepared students with visual impairments well for participation in employment. Responses varied significantly by school type ($z=-6.73$, $df=2$, $p<.05$), with a moderate effect size (0.57). Junior secondary teachers tended to agree more ($M=2.63$) than senior secondary teachers

Table 60

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Employment Participation by School Type

	Junior Secondary School (n=770)			Senior Secondary School (n=258)					
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	665	2.67	0.95	228	2.03	1.09	2	-7.89	0.65
Science	670	2.69	0.91	225	2.14	1.10	2	-6.73	0.57
English Language	672	2.81	0.93	227	2.10	1.16	2	-8.14	0.72
Setswana Language	665	2.56	1.03	231	2.00	1.15	2	-0.53	0.53
Optional Subjects	658	3.18	1.11	222	2.22	1.29	2	-9.68	0.83

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

($M=2.14$) that science instruction prepared students with visual impairments well for participation in employment. Participants tended to disagree or tended to agree ($M=2.10$ - 2.81) that English language instruction prepared students with visual impairments well for employment participation. Responses differed significantly by school type ($z=-8.14$, $df=2$, $p < .05$), with a moderate effect size (0.72). Junior secondary teachers tended to agree more ($M=2.81$) than senior secondary teachers ($M=2.10$) that English language instruction prepared students with visual impairments well for employment participation. Moreover, participants tended to disagree or tended to agree ($M=2.00$ - 2.56) that Setswana language instruction prepared students with visual impairments well for employment participation. Responses varied

significantly by school type ($z=-6.53$, $df=2$, $p<.05$), with a moderate effect size (0.53). Senior secondary teachers agreed less ($M=2.00$) than junior secondary teachers ($M=2.56$) that Setswana language instruction prepared students with visual impairments well for participation in employment. Regarding the statement that optional subjects prepared students with visual impairments well for participation in employment, participants tended to disagree, tended to agree, or agreed ($M=2.22-3.18$). Responses varied significantly by school type ($z=-9.68$, $df=2$, $p<.05$), with a large effect size (0.83). Junior secondary teachers agreed more ($M=3.18$) than senior secondary teachers ($M=2.22$) that optional subjects prepared students with visual impairments well for participation in employment.

Table 61 presents results from a Mann Whitney U test conducted by school region on questions 63 to 66 and 69 (junior secondary schools), as well as questions 61 to 65 (senior secondary schools) to determine statistical differences in participants' beliefs about coursework related to employment participation for students with visual impairments. Kgatleng region teachers and South East region teachers tended to disagree or tended to agree ($M=2.39-2.59$) that math instruction prepared students with visual impairments well for participation in employment. Responses differed significantly by school region ($z=-2.51$, $df=2$, $p<.05$), with a small effect size (0.20). South East region teachers tended to agree more ($M=2.59$) than Kgatleng region teachers ($M=2.39$) that math instruction prepared students with visual impairments well for participation in employment.

Participants tended to disagree or tended to agree ($M=2.41-2.65$) that science instruction prepared students with visual impairments well for participation in employment. Responses varied significantly by school region ($z=-3.25$, $df=2$, $p<.05$), with a small effect size (0.25). South East region teachers tended to agree more ($M=2.65$) than Kgatleng region teachers ($M=2.41$) that

Table 61

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Employment Participation by School Region

	Kgatleng Region (n=407)			South East Region (n=621)					
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	373	2.39	1.08	520	2.59	0.98	2	-2.51	0.20
Science	374	2.41	1.02	521	2.65	0.95	2	-3.25	0.25
English Language	375	2.51	1.07	524	2.71	1.00	2	-2.53	0.19
Setswana Language	373	2.33	1.08	523	2.48	1.09	2	-1.93	0.14
Optional Subjects	371	2.88	1.35	509	2.98	1.14	2	-0.03	0.08

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

science instruction prepared students with visual impairments well for participation in employment. Participants also tended to agree ($M=2.51-2.71$) that English language instruction prepared students with visual impairments for employment. Responses differed significantly by school region ($z=-2.53$, $df=2$, $p<.05$), with South East region teachers tending to agree more ($M=2.71$) than Kgatleng region teachers ($M=2.51$) that English language instruction prepared students with visual impairments well for participation in employment.

Participants tended to disagree ($M=2.33-2.48$) that Setswana language instruction prepared students with visual impairments well for employment participation. Responses did not vary significantly by school region ($z=-1.93$, $df=2$, $p>.05$). Regarding the statement that optional subjects prepared students with visual impairments well for participation in employment,

participants tended to agree ($M=2.88-2.98$), although responses did not vary significantly by school region ($z=-0.03$, $df=2$, $p>.05$).

Overall, participants in this study tended to agree concerning their beliefs on coursework related to employment participation for junior secondary school students with visual impairments. Participants tended to agree that social studies instruction prepared students with visual impairments well for participation in employment ($M=2.67$). Participants also tended to agree that agriculture instruction prepared students well for participation in employment ($M=2.78$).

Table 62 presents results from Kruskal-Wallis tests conducted by teacher position on questions 67 and 68 (junior secondary schools) to determine statistical differences in participants' beliefs about coursework related to employment participation for students with visual impairments. General education teachers, special education teachers, and guidance and counseling teachers tended to disagree or tended to agree ($M=2.45-2.79$) that social studies instruction prepared students with visual impairments well for participation in employment. Respondents' answers did not differ significantly by teacher position ($\chi^2= 4.41$, $df=2$, $p>.05$). Moreover, participants tended to agree or agreed ($M=2.65-3.21$) that agriculture instruction prepared students with visual impairments well for participation in employment. Responses varied significantly by teacher position ($\chi^2= 9.56$, $df=2$, $p<.05$), although the effect size (0.12) was small. Results from a Mann Whitney U comparing position groups supported a significant difference between general education and guidance and counseling teachers. Guidance and counseling teachers agreed more ($M=3.21$) than general education teachers ($M=2.76$) that agriculture instruction prepared students with visual impairments well for participation in employment ($z=-3.16$, $p<.01$).

Table 62

Kruskal-Wallis Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Employment Participation by Teacher Position

	General Education Teacher (n=662)			Special Education Teacher (n=57)			Guidance and Counseling Teacher (n=51)					
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Social Studies	574	2.68	0.90	49	2.45	0.98	42	2.79	0.65	2	4.41	0.08
Agriculture	574	2.76	0.92	49	2.65	1.23	42	3.21	0.72	2	9.56	0.12

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 63 presents results from a Mann Whitney U test conducted by school region on questions 67 and 68 (junior secondary schools) to determine statistical differences in participants' beliefs about coursework related to employment participation for students with visual impairments. Kgatleng region teachers and South East region teachers tended to agree ($M=2.57$ - 2.84) that social studies instruction prepared students with visual impairments well for participation in employment. Responses differed significantly by school region ($z=-3.41$, $df=2$, $p < .05$), with a small effect size (0.31). Kgatleng region teachers tended to agree more ($M=2.84$) than South East region teachers ($M=2.57$) that social studies instruction prepared students with visual impairments well for participation in employment. Participants also tended to agree ($M=2.70$ - 2.91) that agriculture instruction prepared students with visual impairments well for participation in employment. Respondents' answers differed significantly by school region ($z=-$

2.14, $df=2$, $p<.05$), with a small effect size (0.22). Kgatleng region teachers tended to agree more ($M=2.91$) than South East region teachers ($M=2.70$) that agriculture instruction prepared students with visual impairments well for participation in employment.

Table 63

Mann Whitney U Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Employment Participation by School Region

	Kgatlang Region ($n=293$)			South East Region ($n=477$)					
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Social Studies	261	2.84	0.72	404	2.57	0.98	2	-3.41	0.31
Agriculture	261	2.91	0.78	404	2.70	1.02	2	-2.18	0.22

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Participants' "Do Not Know" Responses on Secondary Coursework Related to Technical and Vocational Training Participation

Summary statistics in Table 64, organized by position group, record participants' "Do Not Know" responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in technical and vocational education training. Percentages represent participants' "Do Not Know" responses by position group concerning whether the instructional courses prepared students well for participation in technical and vocational education training. The five instructional courses were relevant to both junior and secondary schools. One hundred and eleven (111) general education teachers (12.7%) answered "Do Not Know" as to whether they believed that math instruction prepared students

Table 64

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position (Junior and Senior Secondary)

	General Education Teacher (n=875)		Special Education Teacher (n=80)		Guidance and Counseling Teacher (n=73)		Total (N=1028)	
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	111	12.7	6	7.5	17	23.3	134	13.0
Science	131	15.0	6	7.5	15	20.5	152	14.8
English Language	116	13.3	7	8.8	14	19.2	137	13.3
Setswana Language	114	13.0	7	8.8	14	19.2	135	13.1
Optional Subjects	134	15.3	3	3.8	15	20.5	152	14.8

Note. Percentages represent data reported by category and totals.

with visual impairments well for participation in technical and vocational training. One hundred and thirty-one (131) general education teachers (15.0%) answered “Do Not Know” as to whether science instruction prepared students with visual impairments well for participation in technical and vocational training. Another 116 participants (13.3%) answered “Do Not Know” as to whether English language instruction prepared students well for technical and vocational training participation. Regarding whether participants believed that Setswana language instruction prepared students well for technical and vocational training participation, 114 general education teachers (13.0%) selected “Do Not Know.” When asked if optional subjects prepared students

with visual impairments for participation in employment, 134 general education teachers (15.3%) answered “Do Not Know.”

Six (6) special education teachers (7.5%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in technical and vocational training. Six (6) special education teachers (7.5%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in technical and vocational training. Another seven participants (8.8%) answered “Do Not Know” as to whether English language instruction prepared students well for technical and vocational training participation. Regarding whether participants believed that Setswana language instruction prepared students well for technical and vocational training participation, seven special education teachers (8.8%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in technical and vocational training, three special education teachers (3.8%) answered “Do Not Know.”

Moreover, 17 guidance and counseling teachers (23.3%) answered “Do Not Know” as to whether math instruction prepared students with visual impairments well for participation in technical and vocational training. Fifteen (15) guidance and counseling teachers (20.5%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in technical and vocational training. Another 14 participants (19.2%) answered “Do Not Know” as to whether English language instruction prepared students well for technical and vocational training participation. Regarding whether participants believed that Setswana language instruction prepared students well for technical and vocational training participation, 14 guidance and counseling teachers (19.2%) selected “Do Not

Know.” When asked if optional subjects prepared students with visual impairments for participation in technical and vocational training, 15 guidance and counseling teachers (20.5%) answered “Do Not Know.”

Overall, results reveal that percentages of “Do Not Know” responses to this group of questions, sorted by position groups, ranged from 3.8-23.3%. These percentages do not meet the 25% cut-off point set for professional development and awareness needs. This suggests that participants knew whether the five instructional courses offered at junior and senior secondary schools prepared students with visual impairments well for participation in technical and vocational training.

Table 65 displays summary statistics by school type for participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in technical and vocational training. One hundred and six (106) junior secondary teachers (13.8%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in technical and vocational training. One hundred and eight (108) junior secondary teachers (14.0%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in technical and vocational training. Another 100 participants (13.0%) answered “Do Not Know” as to whether English language instruction prepared students well for technical and vocational training participation. Regarding whether Setswana language instruction prepared students well for technical and vocational training participation, 102 junior secondary teachers (13.2%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in technical and vocational training, 100 junior secondary teachers (13.0%)

Table 65

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Technical and Vocational Education Participation by School Type (Junior and Senior Secondary)

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Total (N=1028)	
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	10.6	13.8	28	10.9	134	13.0
Science	108	14.0	44	17.1	152	14.8
English Language	100	13.0	37	14.3	137	13.3
Setswana Language	102	13.2	33	12.8	135	13.1
Optional Subjects	100	13.0	52	20.2	152	14.8

Note. Percentages represent data reported by category and totals.

answered “Do Not Know.”

In addition, 28 senior secondary teachers (10.9%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in technical and vocational training. Forty-four (44) senior secondary teachers (17.1%) answered “Do Not Know” as to whether science instruction prepared students well for technical and vocational training participation. Another 37 participants (14.3%) answered “Do Not Know” as to whether they believed English language instruction prepared students well for technical and vocational training participation. Regarding whether Setswana language instruction prepared students well for technical and vocational training participation, 33 senior secondary

teachers (12.8%) selected “Do Not Know.” When asked about optional subjects, 52 senior secondary teachers (20.2%) answered “Do Not Know.”

Overall, percentages by position of “Do Not Know” responses to this set of questions ranged from 10.9-20.2%. No response rate met the 25% cut-off point that indicates professional development and awareness needs. This supports the conclusion that participants knew whether the five instructional courses offered at junior and senior secondary schools prepared students with visual impairments well for participation in technical and vocational training.

Table 66 displays summary statistics by school region of participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in technical and vocational training. Thirty-six (36) Kgatleng region teachers (8.8%) answered “Do Not Know” as to whether math instruction prepared students with visual impairments well for participation in technical and vocational training. Thirty-six (36) Kgatleng region teachers (8.8%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in technical and vocational training. Another 33 participants (8.1%) answered “Do Not Know” as to whether English language instruction prepared students well for technical and vocational training participation. Regarding whether participants believed that Setswana language instruction prepared students well for technical and vocational training participation, 33 Kgatleng region teachers (8.1%) selected “Do Not Know.” Regarding optional subjects preparing students with visual impairments for participation in technical and vocational training, 35 Kgatleng region teachers (8.6%) answered “Do Not Know.”

Moreover, 98 South East region teachers (15.8%) answered “Do Not Know” as to whether math instruction prepared students with visual impairments well for participation in

technical and vocational training. One hundred and sixteen (116) South East region teachers (18.7%) answered “Do Not Know” as to whether they believed that science instruction prepared students with visual impairments well for participation in technical and vocational training. Another 104 participants (16.7%) answered “Do Not Know” as to whether English language instruction prepared students well for technical and vocational training participation. Regarding whether participants believed that Setswana language instruction prepared students well for technical and vocational training participation, 102 South East region teachers (16.4%) selected “Do Not Know.” When asked if optional subjects prepared students with visual impairments for participation in technical and vocational training, 117 South East region teachers (18.8%) answered “Do Not Know.”

Table 66

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Technical and Vocational Education Participation by School Region (Junior and Senior Secondary)

	Kgatleng Region (n=407)		South East Region (n=621)		Total (N=1028)	
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	36	8.8	98	15.8	134	13.0
Science	36	8.8	116	18.7	152	14.8
English Language	33	8.1	104	16.7	137	13.3
Setswana Language	33	8.1	102	16.4	135	13.1
Optional Subjects	35	8.6	117	18.8	152	14.8

Note. Percentages represent data reported by category and totals.

Overall, percentages by school region of “Do Not Know” responses to this set of questions ranged from 8.1-18.8%. No question generated a percentage of “Do Not Know” responses that met the 25% cut-off point that indicates professional development and awareness needs. This supports the conclusion that participants knew whether the five instructional courses offered at junior and senior secondary schools prepared students with visual impairments well for participation in technical and vocational training.

Table 67 includes summary statistics by position group of participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing junior secondary school students with visual impairments well for participation in technical and

Table 67

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position (Junior Secondary School)

	General Education Teacher (<i>n</i> =662)		Special Education Teacher (<i>n</i> =57)		Guidance and Counseling Teacher (<i>n</i> =51)		Total (<i>N</i> =770)	
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Social Studies	84	12.7	7	12.3	8	15.7	99	12.9
Agriculture	86	13.0	6	10.5	9	17.6	101	13.1

Note. Percentages represent data reported by category and totals.

vocational training. The two courses were relevant only for junior secondary schools. Eighty-four (84) general education teachers (12.7%) selected “Do Not Know” regarding whether they

believed that instruction in social studies prepared students with visual impairments well for technical and vocational training participation. Additionally, 86 general education teachers (13.0%) responded “Do Not Know” concerning whether instruction in agriculture prepared students well for technical and vocational training participation. Seven (7) special education teachers (12.3%) selected “Do Not Know” as to whether instruction in social studies prepared students with visual impairments for participation in technical and vocational training. Also, six special education teachers (10.5%) responded “Do Not Know” concerning whether instruction in agriculture prepared students for technical and vocational training participation. Moreover, eight guidance and counseling teachers (15.7%) selected “Do Not Know” regarding whether instruction in social studies prepared students with visual impairments for participation in technical and vocational training. Furthermore, nine guidance and counseling teachers (17.6%) responded “Do Not Know” concerning whether instruction in agriculture prepared students well for technical and vocational training participation.

Overall, percentages by position groups of “Do Not Know” responses to this set of questions ranged from 10.5-17.6%. No percentage of responses met the 25% cut-off point that would indicate professional development and awareness needs. This supports the conclusion that participants knew whether social studies and agriculture instruction prepared students with visual impairments well for participation in technical and vocational training.

Table 68 presents summary statistics by school region of participants’ “Do Not Know” responses to questions about their beliefs on instructional coursework aimed at preparing junior secondary school students with visual impairments well for participation in technical and vocational training. Thirty-two (32) Kgatleng region teachers (10.9%) selected “Do Not Know” regarding whether they believed that instruction in social studies prepared students with visual

impairments well for technical and vocational training participation. Additionally, 33 Kgatleng region teachers (11.3%) responded “Do Not Know” concerning whether instruction in agriculture prepared students for technical and vocational training. Moreover, 67 South East region teachers (14.0%) selected “Do Not Know” regarding whether they believed that instruction in social studies prepared students with visual impairments well for technical and vocational training participation. Further, 68 South East region teachers (14.3%) responded “Do Not Know” concerning whether instruction in agriculture prepared students well for technical and vocational training participation.

Table 68

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Technical and Vocational Education Participation by School Region (Junior Secondary School)

	Kgatlang Region (n=293)		South East Region (n=477)		Total (N=770)	
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Social Studies	32	10.9	67	14.0	99	12.9
Agriculture	33	11.3	68	14.3	101	13.1

Note. Percentages represent data reported by category and totals.

In general, percentages by school region of “Do Not Know” responses to this set of questions ranged from 10.9-14.3%. No responses reached the 25% rate that would indicate professional development and awareness needs. This supports the conclusion that participants knew whether social studies and agriculture instruction prepared students with visual impairments well for participation in technical and vocational training.

Participants' Differences on Secondary Coursework Related to Technical and Vocational Training Participation

Overall, participants in this study tended to disagree or tended to agree concerning coursework related to technical and vocational education participation for students with visual impairments. Participants in this study tended to agree that math instruction prepared students with visual impairments well for participation in technical and vocational education ($M=2.56$). Participants tended to disagree that science instruction prepared students well for participation in technical and vocational education ($M=2.49$). Participants in this study tended to agree that English language instruction prepared students well for technical and vocational education participation ($M=2.52$). In addition, participants tended to disagree that Setswana language instruction prepared students with visual impairments well for technical and vocational education participation ($M=2.37$). Regarding optional subjects, participants tended to agree that these subjects prepared students well for technical and vocational education participation ($M=2.94$).

Table 69 presents results from Kruskal-Wallis tests conducted by teacher position on questions 70 to 73 and 76 (junior secondary schools), as well as questions 66 to 70 (senior secondary schools) to determine statistical differences in participants' beliefs about coursework related to technical and vocational education participation for students with visual impairments. General education teachers, special education teachers, and guidance and counseling teachers tended to disagree or tended agree ($M=2.43$ - 2.96) that math instruction prepared students with visual impairments well for participation in technical and vocational education. Responses varied significantly by teacher position ($\chi^2= 8.76$, $df=2$, $p<.05$), with a small effect size (0.10). Results from a Mann Whitney U test comparing position groups demonstrate that guidance and counseling teachers differed significantly from general education and special education teachers

in their beliefs. Guidance and counseling teachers tended to agree more ($M=2.96$) than general education teachers ($M=2.54$) that math instruction prepared students with visual impairments well for participation in technical and vocational education ($z=-2.89, p<.01$). Guidance and counseling teachers also tended to agree more ($M=2.96$) than special education teachers ($M=2.43$) on this item ($z=-2.38, p<.05$). Participants tended to disagree or tended agree ($M=2.34-2.79$) that science instruction prepared students with visual impairments well for participation in

Table 69

Kruskal-Wallis Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position

	General Education Teacher ($n=875$)			Special Education Teacher ($n=80$)			Guidance and Counseling Teacher ($n=73$)					
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Math	764	2.54	1.07	74	2.43	1.21	56	2.96	0.89	2	8.76	0.10
Science	744	2.48	1.01	74	2.34	1.11	58	2.79	0.64	2	5.84	0.08
English Language	759	2.49	1.04	73	2.66	1.16	59	2.68	0.94	2	2.71	0.06
Setswana Language	761	2.35	1.09	73	2.15	1.30	59	2.88	0.91	2	15.02	0.13
Optional Subjects	741	2.92	1.24	77	2.88	1.20	58	3.24	0.92	2	2.05	0.05

Note.* $p<.05$.** $p<.01$.*** $p<.001$.

technical and vocational education. Respondents' answers did not differ significantly by teacher position ($\chi^2= 5.84$, $df=2$, $p>.05$).

Participants tended to disagree or tended to agree ($M=2.49$ - 2.68) that English language instruction prepared students with visual impairments well for technical and vocational education participation. Additionally, responses did not vary significantly by teacher position ($\chi^2= 2.71$, $df=2$, $p>.05$). Moreover, participants tended to disagree or tended to agree ($M=2.15$ - 2.88) that Setswana language instruction prepared students with visual impairments well for technical and vocational education participation. Responses varied significantly by teacher position ($\chi^2= 15.02$, $df=2$, $p<.05$), but the effect size (0.13) was small. Results from a Mann Whitney U test comparing position groups supported the conclusion that guidance and counseling teachers differed significantly from general education and special education teachers. General education teachers agreed less ($M=2.35$) than guidance and counseling teachers ($M=2.88$) that Setswana language instruction prepared students with visual impairments well for participation in technical and vocational education ($z=-3.57$, $p<.01$). Special education teachers also agreed less ($M=2.15$) than guidance and counseling teachers ($M=2.88$) on this item ($z=-3.45$, $p<.01$). Regarding the statement that optional subjects prepared students with visual impairments well for participation in technical and vocational education, participants tended to agree or agreed ($M=2.88$ - 3.24). Responses did not vary significantly between position groups on this item ($\chi^2= 2.05$, $df=2$, $p>.05$).

Table 70 presents the results of a Mann Whitney U test conducted by school type on questions 70 to 73 and 76 (junior secondary schools), as well as questions 66 to 70 (senior secondary schools) to determine statistical differences in participants' beliefs about coursework related to technical and vocational education participation for students with visual impairments.

Junior secondary and senior secondary teachers tended to disagree or tended to agree ($M=2.09-2.72$) that math instruction prepared students with visual impairments well for participation in technical and vocational education. Respondents' answers differed significantly by school type ($z=-6.88$, $df=2$, $p<.05$), with a moderate effect size (0.61). Junior secondary teachers tended to agree more ($M=2.72$) than senior secondary teachers ($M=2.09$) that math instruction prepared students with visual impairments well for participation in technical and vocational education.

Participants disagreed, tended to disagree, or tended to agree ($M=1.98-2.65$) that science instruction prepared students with visual impairments well for participation in technical and

Table 70

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by School Type

	Junior Secondary School ($n=770$)			Senior Secondary School ($n=258$)					
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	664	2.72	0.97	230	2.09	1.22	2	-6.88	0.61
Science	662	2.65	0.90	214	1.98	1.12	2	-7.95	0.70
English Language	670	2.69	0.95	221	2.00	1.14	2	-7.95	0.69
Setswana Language	668	2.52	1.05	225	1.90	1.13	2	-7.18	0.58
Optional Subjects	670	3.19	1.09	206	2.13	1.28	2	-10.30	0.93

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

vocational education. Responses varied significantly by school type ($z=-7.95$, $df=2$, $p<.05$) with a moderate effect size (0.70). Junior secondary teachers tended to agree more ($M=2.65$) than senior secondary teachers ($M=1.98$) that science instruction prepared students with visual impairments well for participation in technical and vocational education. Participants tended to disagree or tended to agree ($M=2.00-2.69$) that English language instruction prepared students with visual impairments well for technical and vocational education participation. Responses varied significantly by school type ($z=-7.95$, $df=2$, $p<.05$), with a moderate effect size (0.69). Junior secondary teachers tended to agree more ($M=2.69$) than senior secondary teachers ($M=2.00$) that English language instruction prepared students with visual impairments well for participation in technical and vocational education.

Moreover, participants disagreed, tended to disagree, or tended to agree ($M=1.90-2.52$) that Setswana language instruction prepared students with visual impairments well for technical and vocational education participation. Responses varied significantly by school type ($z=-7.18$, $df=2$, $p<.05$), with a moderate effect size (0.58). Senior secondary teachers agreed less ($M=1.90$) than junior secondary teachers ($M=2.52$) that Setswana language instruction prepared students with visual impairments well for participation in technical and vocational education. Regarding the statement that optional subjects prepared students with visual impairments well for participation in technical and vocational education, participants tended to disagree, tended to agree, or agreed ($M=2.13-3.19$). Respondents' answers differed significantly by school type ($z=-10.30$, $df=2$, $p<.05$), with a large effect size (0.93). Junior secondary teachers agreed more ($M=3.19$) than senior secondary teachers ($M=2.13$) that optional subjects prepared students with visual impairments well for participation in technical and vocational education.

Table 71 presents results from a Mann Whitney U test conducted by school region on questions 70 to 73 and 76 (junior secondary schools), as well as questions 66 to 70 (senior secondary schools), to determine statistical differences in participants' beliefs about coursework related to technical and vocational education participation for students with visual impairments. Kgatleng region teachers and South East region teachers tended to disagree or tended to agree ($M=2.41-2.66$) that math instruction prepared students with visual impairments well for participation in technical and vocational education. Responses varied significantly by school region ($z=-3.42$, $df=2$, $p<.05$), with a small effect size (0.23). South East region teachers tended to agree more ($M=2.66$) than Kgatleng region teachers ($M=2.41$) that math instruction prepared

Table 71

Mann Whitney U Analysis for Junior and Senior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by School Region

	Kgatlang Region ($n=407$)			South East Region ($n=621$)					
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	371	2.41	1.08	523	2.66	1.05	2	-3.42	0.23
Science	371	2.38	1.03	505	2.56	0.97	2	-2.25	0.18
English Language	374	2.46	1.06	517	2.56	1.03	2	-1.32	0.10
Setswana Language	374	2.32	1.10	519	2.40	1.11	2	-0.99	0.07
Optional Subjects	372	2.90	1.33	504	2.97	1.13	2	-0.40	0.06

Note.* $p<.05$.** $p<.01$.*** $p<.001$.

students with visual impairments well for participation in technical and vocational education.

Participants tended to disagree or tended to agree ($M=2.38-2.56$) that science instruction prepared students with visual impairments well for participation in technical and vocational education. Responses differed significantly by school region ($z=-2.25$, $df=2$, $p<.05$), with South East region teachers tending to agree more ($M=2.56$) than Kgatleng region teachers ($M=2.38$) that science instruction prepared students with visual impairments well for participation in technical and vocational education. Participants tended to disagree or tended to agree ($M=2.46-2.56$) that English language instruction prepared students with visual impairments well for technical and vocational education participation. Respondents' answers did not differ significantly by school region ($z=-1.32$, $df=2$, $p>.05$).

Moreover, participants tended to disagree ($M=2.32-2.40$) that Setswana language instruction prepared students with visual impairments well for technical and vocational education participation. Responses did not vary significantly by school region ($z=-0.99$, $df=2$, $p>.05$). Regarding the statement that optional subjects prepared students with visual impairments well for participation in technical and vocational education, participants tended to agree ($M=2.90-2.97$). Respondents' answers did not differ significantly by school region ($z=-.40$, $df=2$, $p>.05$).

Overall, participants in this study tended to agree concerning their beliefs on coursework related to technical and vocational education participation for junior secondary school students with visual impairments. Participants in this study tended to agree that social studies instruction prepared students with visual impairments well for participation in technical and vocational education ($M=2.61$). Participants also tended to agree that agriculture instruction prepared students well for participation in technical and vocational education ($M=2.78$).

Table 72 presents results from Kruskal-Wallis tests conducted by teacher position on questions 74 and 75 (junior secondary schools) to determine statistical differences in participants' beliefs about coursework related to technical and vocational education participation for students with visual impairments. General education teachers, special education teachers, and guidance and counseling teachers tended to disagree or tended to agree ($M=2.34-2.84$) that social studies instruction prepared junior secondary school students with visual impairments well for participation in technical and vocational education. Respondents' answers differed significantly by teacher position ($\chi^2= 6.33$, $df=2$, $p<.05$) with a small effect size (0.10). Results from a Mann Whitney U test comparing position groups supports a significant difference between special

Table 72

Kruskal-Wallis Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by Teacher Position

	General Education Teacher ($n=662$)			Special Education Teacher ($n=57$)			Guidance and Counseling Teacher ($n=51$)					
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
Social Studies	578	2.61	0.91	50	2.34	1.06	43	2.84	0.57	2	6.33	0.10
Agriculture	576	2.77	0.92	51	2.65	1.20	42	3.17	0.76	2	7.69	0.11

Note.* $p<.05$.** $p<.01$.*** $p<.001$.

education and guidance and counseling teachers on this item. Guidance and counseling teachers agreed more ($M=2.84$) than special education teachers ($M=2.34$) that social studies instruction prepared students with visual impairments well for participation in technical and vocational education ($z=-2.54, p<.05$). Moreover, participants tended to agree or agreed ($M=2.65-3.17$) that agriculture instruction prepared junior secondary school students with visual impairments well for participation in technical and vocational education. Responses varied significantly by teacher position ($\chi^2=7.69, df=2, p<.05$), with a small effect size (0.11). Results from a Mann Whitney U test comparing position groups support the conclusion that general education and guidance and counseling teachers differed significantly in responses. Guidance and counseling teachers agreed more ($M=3.17$) than general education teachers ($M=2.77$) that agriculture instruction prepared junior secondary school students with visual impairments well for participation in technical and vocational education ($z=-2.80, p<.01$).

Table 73

Mann Whitney U Analysis for Junior Secondary School Respondents' Beliefs About Coursework for Technical and Vocational Education Participation by School Region

	Kgatleng Region ($n=293$)			South East Region ($n=477$)					
<i>I believe the following subjects prepare students with visual impairments well for technical and vocational education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Social Studies	261	2.80	0.73	410	2.49	0.98	2	-4.22	0.35
Agriculture	260	2.93	0.80	409	2.69	1.01	2	-2.78	0.26

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

Table 73 presents results from a Mann Whitney U test conducted by school region on questions 74 and 75 (junior secondary schools) to determine statistical differences in participants' beliefs about coursework related to technical and vocational education participation for junior secondary school students with visual impairments. Kgatleng region teachers and South East region teachers tended to disagree or tended to agree ($M=2.49-2.80$) that social studies instruction prepared students with visual impairments well for participation in technical and vocational education. Responses differed significantly by school region ($z=-4.22$, $df=2$, $p<.05$), with a small effect size (0.35). Kgatleng region teachers tended to agree more ($M=2.80$) than South East region teachers ($M=2.49$) that social studies instruction prepared students with visual impairments well for participation in technical and vocational education. Participants also tended to agree ($M=2.69-2.93$) that agriculture instruction prepared students with visual impairments well for participation in technical and vocational education. Respondents' answers differed significantly by school region ($z=-2.78$, $df=2$, $p<.05$) with a small effect size (0.26). Kgatleng region teachers tended to agree more ($M=2.93$) than South East region teachers ($M=2.69$) that agriculture instruction prepared students with visual impairments well for participation in technical and vocational education.

Participants' "Do Not Know" Responses on Vocational Coursework Related to Higher Education Participation

Table 74 presents summary statistics by region for vocational teachers who chose "Do Not Know" as their answer to questions 60 to 68 (vocational schools). These results include participants who indicated "Do Not Know" as to whether courses in math, carpentry, brick laying, English language, accounting, computing, management, and other subjects prepared students well for participation in postsecondary education. Thirty-three (33) vocational teachers

(20.9%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in postsecondary education. Thirty-seven (37) vocational teachers (23.4%) answered “Do Not Know” as to whether carpentry-related subjects prepared students with visual impairments well for participation in postsecondary education. Another 36 participants (22.8%) answered “Do Not Know” as to whether they believed brick-laying subjects prepared students well for postsecondary participation. Regarding whether participants believed that English language instruction prepared students well for postsecondary participation, 31 vocational teachers (19.6%) selected “Do Not Know.” Furthermore, 33 vocational teachers (20.9%) selected “Do Not Know” regarding instruction in accounting-related subjects. Thirty-four (34) participants (21.5%) responded “Do Not Know” concerning whether instruction in computer-related subjects prepared students well for postsecondary participation. When asked if management-related subjects prepared students with visual impairments for participation in postsecondary education, 28 vocational teachers (17.7%) answered “Do Not Know.” Additionally, 14 participants (8.9%) selected “Do Not Know” concerning whether they believed that instruction in other subjects prepared students for postsecondary participation.

Percentages of “Do Not Know” responses ranged from 8.9- 23.4% when it came to vocational teachers responding to questions about whether instruction in specific subject areas prepared students for postsecondary participation. This response rate did not meet the 25% cut-off point that would indicate professional development and awareness needs. This suggests that participants knew whether instructional courses prepared students with visual impairments well for participation in postsecondary education.

Table 74 also displays summary statistics by school region for participants' (vocational teachers') "Do Not Know" responses to questions on their beliefs about instructional coursework aimed at preparing students with visual impairments well for participation in postsecondary education. Sixteen (16) Kgatleng region teachers (23.9%) answered "Do Not Know" as to whether they believed that math instruction prepared students with visual impairments well for participation in postsecondary education. Nineteen (19) Kgatleng region teachers (28.4%) answered "Do Not Know" as to whether they believed that carpentry-related courses prepared students with visual impairments well for participation in postsecondary education. Another 18 participants (26.9%) answered "Do Not Know" as to whether they believed brick-laying instruction prepared students well for postsecondary participation. Regarding whether participants believed that English language instruction prepared students well for postsecondary participation 16 Kgatleng region teachers (23.9%) selected "Do Not Know." Furthermore, 18 Kgatleng region teachers (26.9%) selected "Do Not Know" regarding instruction in accounting-related subjects. Eighteen (18) participants (26.9%) responded "Do Not Know" concerning instruction in computer-related subjects. When asked if management-related subjects prepared students with visual impairments for participation in postsecondary education, 14 Kgatleng region teachers (20.9%) answered "Do Not Know." Additionally, three participants (4.5%) selected "Do Not Know" concerning whether they believed that instruction in other subjects prepared students for postsecondary participation.

Seventeen (17) South East region teachers (18.7%) answered "Do Not Know" as to whether they believed that math instruction prepared students with visual impairments well for participation in postsecondary education. Eighteen (18) South East region teachers (19.8%) answered "Do Not Know" as to whether they believed that carpentry-related subjects prepared

Table 74

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Postsecondary Education Participation by School Region (Vocational School)

	Kgatleng Region (n=67)		South East Region (n=91)		Total (N=158)	
<i>I believe the following subjects prepare students with visual impairments well for postsecondary education participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	16	23.9	17	18.7	37	23.4
Carpentry-Related Subjects	19	28.4	18	19.8	37	23.4
Brick-Laying Subjects	18	26.9	18	19.8	36	22.8
English Language	16	23.9	15	16.5	31	19.6
Accounting-Related Subjects	18	26.9	15	16.5	33	20.9
Computer-Related Subjects	18	26.9	16	17.6	34	21.5
Management-Related Subjects	14	20.9	14	15.4	28	17.7
Other Subjects	3	4.5	11	12.1	14	8.9

Note. Percentages represent data reported by category and totals.

students with visual impairments well for participation in postsecondary education. Another 18 participants (19.8%) answered “Do Not Know” as to whether brick-laying subjects prepared students well for postsecondary participation. Regarding whether participants believed that English language instruction prepared students well for postsecondary participation, 15 South East region teachers (16.5%) selected “Do Not Know.” Once more, 15 South East region teachers (16.5%) selected “Do Not Know” regarding instruction in accounting-related subjects. Sixteen (16) participants (17.6%) responded “Do Not Know” concerning whether instruction in

computer-related subjects prepared students well for postsecondary participation. When asked if management-related subjects prepared students with visual impairments for participation in postsecondary education, 14 South East region teachers (15.4%) answered “Do Not Know.” Furthermore, 11 participants (12.1%) selected “Do Not Know” concerning whether instruction in other subjects prepared students for postsecondary participation.

Percentages by school region of “Do Not Know” responses to this set of questions ranged from 4.5-28.4%. When it came to the efficacy of instruction in brick-laying, carpentry, accounting, and computing for preparing students for postsecondary education, more than 25% of Kgatleng region teachers answered “Do Not Know,” indicating a need for professional development and awareness in this area. This suggests that participants did not know whether these four instructional courses prepared students with visual impairments well for participation in postsecondary education.

Participants’ Differences on Vocational Coursework Related to Higher Education

Participation

Overall, participants (vocational teachers) in this study tended to agree or agreed concerning their beliefs on coursework related to postsecondary education participation for students with visual impairments. Participants in this study agreed that math instruction prepared students with visual impairments well for participation in postsecondary education ($M=3.17$). Participants also tended to agree that carpentry-related subjects prepared students well for participation in postsecondary education ($M=2.70$). Participants in this study tended to agree that brick-laying subjects prepared students well for postsecondary education participation ($M=2.72$). Again, participants agreed that English language instruction prepared students with visual impairments well for postsecondary education participation ($M=3.24$). Regarding accounting-

related subjects, participants tended to agree that these subjects prepared students well for postsecondary participation ($M=2.93$). Participants also agreed that computer-related subjects prepared students well for participation in postsecondary education ($M=3.10$). Participants agreed that management-related subjects prepared students well for postsecondary education participation ($M=3.05$). Furthermore, participants tended to agree that other subjects prepared students with visual impairments well for postsecondary education participation ($M=2.99$).

Table 75 presents results from a Mann Whitney U test conducted by school region on questions 60 to 67 (vocational schools) to determine statistical differences in participants' beliefs about coursework related to postsecondary participation for students with visual impairments. Kgatleng region teachers and South East region teachers tended to agree or agreed ($M=2.76$ - 3.45) that math instruction prepared students with visual impairments well for participation in postsecondary education. Responses varied significantly by school region ($z=-4.28$, $df=2$, $p<.05$), with a moderate effect size (0.78). South East region teachers agreed more ($M=3.45$) than Kgatleng region teachers ($M=2.76$) that math instruction prepared students with visual impairments well for participation in postsecondary education.

Participants tended to agree ($M=2.62$ - 2.83) that carpentry-related subjects prepared students with visual impairments well for participation in postsecondary education. Responses did not vary significantly by school region ($z=-1.47$, $df=2$, $p>.05$). Participants tended to agree ($M=2.63$ - 2.86) that brick-laying subjects prepared students with visual impairments well for postsecondary education participation. Respondents' answers did not differ significantly ($z=-1.53$, $df=2$, $p>.05$). Moreover, participants agreed ($M=3.02$ - 3.39) that English language instruction prepared students with visual impairments well for postsecondary education participation. Respondents' answers differed significantly by school region ($z=-2.12$, $df=2$,

Table 75

Mann Whitney U Analysis of Vocational School Respondents' Beliefs About Coursework for

Postsecondary Education Participation by School Region

	Kgatleng Region (n=67)			South East Region (n=91)					
<i>I believe the following subjects prepare students with visual impairments well for postsecondary education participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	51	2.76	0.97	74	3.45	0.81	2	-4.28	0.78
Carpentry-Related Subjects	48	2.83	0.98	73	2.62	0.72	2	-1.47	0.25
Brick-Laying Subjects	49	2.86	0.98	73	2.63	0.74	2	-1.53	0.27
English Language	51	3.02	0.97	76	3.39	0.69	2	-2.12	0.45
Accounting-Related Subjects	49	2.78	0.99	76	3.03	0.75	2	-1.27	0.29
Computer-Related Subjects	49	2.88	0.99	75	3.24	0.65	2	-1.83	0.45
Management-Related Subjects	53	2.91	0.97	77	3.14	0.68	2	-1.11	0.28
Other Subjects	64	2.83	0.79	80	3.13	0.60	2	-2.32	0.43

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

$p < .05$), with a small effect size (0.45). South East region teachers tended to agree more ($M=3.39$) than Kgatleng region teachers ($M=3.02$) that English language instruction prepared students with visual impairments well for participation in postsecondary education. Regarding the statement that accounting-related subjects prepared students with visual impairments well for participation in postsecondary education, participants tended to agree or agreed ($M=2.78-3.03$). Responses did not vary significantly by school region ($z=-1.27$, $df=2$, $p > .05$).

Participants tended to agree or agreed ($M=2.88-3.24$) that computer-related subjects prepared students with visual impairments well for postsecondary education participation. Respondents' answers did not differ significantly ($z=-1.83$, $df=2$, $p>.05$). Furthermore, participants tended to agree or agreed ($M=2.91-3.14$) that management-related subjects prepared students with visual impairments well for postsecondary education participation. Additionally, there was no significant difference reported by school region ($z=-1.11$, $df=2$, $p>.05$). Regarding the statement that other subjects prepared students with visual impairments well for participation in postsecondary education, participants tended to agree or agreed ($M=2.83-3.13$). Respondents' answers differed significantly by school region ($z=-1.27$, $df=2$, $p<.05$) with a small effect size (0.43). South East region teachers tended to agree more ($M=3.13$) than Kgatleng region teachers ($M=2.83$) that other subjects prepared students with visual impairments well for participation in postsecondary education.

Participants' "Do Not Know" Responses on Vocational Coursework Related to Employment Participation

Table 76 presents analysis by position group for participants (vocational teachers) who chose "Do Not Know" as their answer to questions 68 to 75, which applied only to vocational schools. Four (4) vocational teachers (2.5%) answered "Do Not Know" as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. Six (6) vocational teachers (3.8%) answered "Do Not Know" as to whether they believed that carpentry-related subjects prepared students with visual impairments well for participation in employment. Another 10 participants (6.3%) answered "Do Not Know" as to whether brick-laying subjects prepared students well for employment participation. Regarding whether participants believed that English language instruction prepared students well for

employment participation, five vocational teachers (3.2%) selected “Do Not Know.” Further, 10 vocational teachers (6.3%) selected “Do Not Know” regarding instruction in accounting-related subjects. Six (6) participants (3.8%) responded “Do Not Know” concerning whether instruction in computer-related subjects prepared students well for employment participation. When asked if management-related subjects prepared students with visual impairments for participation in employment, eight vocational teachers (5.1%) answered “Do Not Know.” Furthermore, 16 participants (10.1%) selected “Do Not Know” concerning whether they believed that instruction in other subjects prepared students for employment participation.

Overall, percentages of “Do Not Know” responses from vocational teachers to this set of questions ranged from 2.5-10.1%, not meeting the 25% cut-off point calling for further professional development and awareness. This suggests that participants knew whether the instructional courses offered in vocational schools prepared students with visual impairments well for participation in employment.

Table 76 also displays participants’ “Do Not Know” responses by school region to beliefs on instructional coursework aimed at preparing students with visual impairments well for participation in employment. No Kgatleng region teacher (0.0%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. Four (4) Kgatleng region teachers (6.0%) answered “Do Not Know” as to whether they believed that carpentry-related subjects prepared students with visual impairments well for participation in employment. Another four participants (6.0%) answered “Do Not Know” as to whether they believed brick-laying subjects prepared students well for employment participation. Regarding whether participants believed that English language instruction prepared students well for employment participation, no Kgatleng region teacher

(0.0%) selected “Do Not Know.” Furthermore, three Kgatleng region teachers (4.5%) selected “Do Not Know” regarding instruction in accounting-related subjects. Two (2) participants (3.0%) responded “Do Not Know” concerning whether instruction in computer-related subjects prepared students well for employment participation. When asked if management-related subjects prepared students with visual impairments for participation in employment, six Kgatleng region teachers (9.0%) answered “Do Not Know.” Additionally, 12 participants (17.9%) selected “Do Not Know” concerning whether instruction in other subjects prepared students for

Table 76

Percentages of “Do Not Know” Responses of Beliefs About Coursework for Employment

Participation by School Region (Vocational School)

	Kgatlang Region (n=67)		South East Region (n=91)		Total (N=158)	
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
Math	0	0.0	4	4.4	4	2.5
Carpentry-Related Subjects	4	6.0	2	2.2	6	3.8
Brick-Laying Subjects	4	4.0	6	6.6	10	6.3
English Language	0	0.0	5	5.5	5	3.2
Accounting-Related Subjects	3	4.5	7	7.7	10	6.3
Computer-Related Subjects	2	3.0	4	4.4	6	3.8
Management-Related Subjects	6	9.0	2	2.2	8	5.1
Other Subjects	12	17.9	4	4.4	16	10.1

Note. Percentages represent data reported by category and totals.

employment participation.

Four (4) South East region teachers (4.4%) answered “Do Not Know” as to whether they believed that math instruction prepared students with visual impairments well for participation in employment. Two (2) South East region teachers (2.2%) answered “Do Not Know” as to whether they believed that carpentry-related subjects prepared students with visual impairments well for participation in employment. Another six participants (6.6%) answered “Do Not Know” as to whether brick-laying subjects prepared students well for participation in employment. Regarding whether participants believed that English language instruction prepared students well for employment participation, five South East region teachers (5.5%) selected “Do Not Know.” Additionally, seven South East region teachers (7.7%) selected “Do Not Know” regarding instruction in accounting-related subjects. Four (4) participants (4.4%) responded “Do Not Know” concerning whether instruction in computer-related subjects prepared students well for employment participation. When asked if management-related subjects prepared students with visual impairments for participation in employment, two South East region teachers (2.2%) answered “Do Not Know.” Furthermore, four participants (4.4%) selected “Do Not Know” concerning whether they believed that instruction in other subjects prepared students for employment participation.

Overall, percentages of “Do Not Know” responses by school region to this set of questions ranged from 0.0-17.9%. No responses met the 25% benchmark set for professional development and awareness needs. This suggests that participants knew whether the instructional courses prepared students with visual impairments well for participation in employment.

Participants' Differences on Vocational Coursework Related to Employment Participation

Overall, participants (vocational teachers) in this study tended to agree concerning their beliefs on coursework related to employment participation for students with visual impairments. Participants tended to agree that math instruction prepared students with visual impairments well for participation in employment ($M=2.88$). Participants also tended to agree that carpentry-related subjects prepared students well for participation in employment ($M=2.59$). Participants tended to agree that brick-laying subjects prepared students well for employment participation ($M=2.56$). Again, participants tended to agree that English language instruction prepared students with visual impairments well for employment participation ($M=2.91$). Regarding accounting-related subjects, participants tended to agree that these subjects prepared students well for employment participation ($M=2.82$). Participants also tended to agree that computer-related subjects prepared students well for participation in employment ($M=2.96$). Participants also tended to agree that management-related subjects prepared students well for employment participation ($M=2.91$). Furthermore, participants tended to agree that other subjects prepared students with visual impairments well for employment participation ($M=2.74$).

Table 77 presents results from a Mann Whitney U test conducted by school region on questions 68 to 75 (vocational schools) to determine statistical differences in participants' beliefs about coursework related to employment participation for students with visual impairments. Kgatleng region teachers and South East region teachers tended to agree or agreed ($M=2.70$ - 3.01) that math instruction prepared students with visual impairments well for participation in employment. Responses did not vary significantly by school region ($z=-1.93$, $df=2$, $p>.05$).

Participants tended to disagree or tended to agree ($M=2.48$ - 2.75) that carpentry-related subjects prepared students with visual impairments well for participation in employment.

Respondents' answers did not differ significantly by school region ($z=-1.62$, $df=2$, $p>.05$).

Participants tended to disagree or tended to agree ($M=2.45-2.71$) that brick-laying subjects prepared students with visual impairments well for employment participation. Responses did not vary significantly by school region ($z=-1.66$, $df=2$, $p>.05$). Moreover, participants tended to agree ($M=2.88-2.98$) that English language instruction prepared students with visual impairments well for employment participation. Respondents' answers did not differ significantly by school region ($z=-0.34$, $df=2$, $p>.05$) on this item. Regarding the statement that accounting-related

Table 77

Mann Whitney U Analysis of Vocational School Respondents' Beliefs About Coursework for Employment Participation by School Region

	Kgatleng Region ($n=67$)			South East Region ($n=91$)					
<i>I believe the following subjects prepare students with visual impairments well for employment participation:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
Math	67	2.70	0.99	87	3.01	0.74	2	-1.93	0.36
Carpentry-Related Subjects	63	2.75	0.95	89	2.48	0.88	2	-1.62	0.30
Brick-Laying Subjects	63	2.71	0.91	85	2.45	0.87	2	-1.66	0.29
English Language	67	2.88	1.02	86	2.93	1.02	2	-0.34	0.05
Accounting-Related Subjects	64	2.84	0.86	84	2.81	1.01	2	-0.16	0.03
Computer-Related Subjects	65	3.00	0.90	87	2.93	1.00	2	-0.21	0.07
Management-Related Subjects	61	2.95	0.90	89	2.88	0.96	2	-0.32	0.07
Other Subjects	55	2.82	0.91	87	2.69	1.02	2	-0.50	

Note. * $p<.05$. ** $p<.01$. *** $p<.001$.

subjects prepared students with visual impairments well for participation in employment, participants tended to agree ($M=2.81-2.84$). Responses did not vary significantly by school region ($z=-0.16$, $df=2$, $p>.05$).

Participants tended to agree or agreed ($M=2.93-3.00$) that computer-related subjects prepared students with visual impairments well for employment participation. Responses did not vary significantly ($z=-.21$, $df=2$, $p>.05$) by school region. Furthermore, participants tended to agree ($M=2.88-2.95$) that management-related subjects prepared students with visual impairments well for employment participation. There was no significant difference in responses by school region on this item ($z=-0.32$, $df=2$, $p>.05$). Regarding the statement that other subjects prepared students with visual impairments well for participation in employment, participants tended to agree ($M=2.69-2.82$). Respondents' answers did not differ significantly by school region ($z=-0.50$, $df=2$, $p>.05$).

Research Question 4

The fourth and final research question examined barriers that impeded the successful implementation of evidence-based transition practices for students with visual impairments in Botswana. The question further investigated whether general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers differed in their perceptions of barriers that impeded successful implementation of evidence-based practices for students with visual impairments in Botswana.

Participants' "Do Not Know" Responses on Transition Planning Barriers

Table 78 presents summary statistics by position for participants who answered "Do Not Know" to questions 77 to 85, questions 71 to 79, and questions 76 to 84, for junior secondary schools, senior secondary schools, and vocational schools respectively. Fifty (50) general

education teachers (5.7%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. Sixty-eight (68) general education teachers (7.8%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another 95 (10.9%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, 76 general education teachers (8.7%) answered “Do Not Know.” Again, 67 (7.7%) answered “Do Not Know” concerning whether there was a lack of professional development activities related to transitions. Regarding the perception that heavy teaching loads limited the level of transition support, 53 general education teachers (6.1%) selected “Do Not Know.” Seventy-five (75) general education teachers (8.6%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, 78 (8.9%) answered “Do Not Know” concerning the perception that there were no clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, 73 general education teachers (8.3%) answered “Do Not Know.”

Two (2) special education teachers (2.5%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. Two (2) special education teachers (2.5%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another four (5.0%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, three special education teachers (3.8%) answered “Do Not

Know.” Again, four (5.0%) answered “Do Not Know” concerning whether there was a lack of professional development activities related to transition. Regarding the perception that heavy teaching loads limited the level of transition support, four special education teachers (5.0%) selected “Do Not Know.” Two (2) special education teachers (2.5%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, two (2.5%) answered “Do Not Know” concerning the perception that there were no clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, seven special education teachers (8.8%) answered “Do Not Know.”

In addition, seven guidance and counseling teachers (9.6%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. One (1) guidance and counseling teacher (1.4%) selected “Do Not Know” regarding the perception that the schools did not have enough staff to support the transition process. None (0.0%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, five guidance and counseling teachers (6.8%) answered “Do Not Know.” Again, four (5.5%) answered “Do Not Know” concerning whether there was lack of professional development activities related to transitions. Regarding the perception that heavy teaching loads limited the level of transition support, two guidance and counseling teachers (2.7%) selected “Do Not Know” as their answer. Three (3) guidance and counseling teachers (4.1%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, eight (11.0%) answered “Do Not Know” concerning the perception that there were no

Table 78

Percentages of “Do Not Know” Responses on Perceptions About Transition Barriers by Teacher Position

	General Education Teacher (n=875)		Special Education Teacher (n=80)		Guidance and Counseling Teacher (n=73)		Vocational Teacher (n=158)		Total (N=1186)	
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
I am inadequately trained to support the transition process	50	5.7	2	2.5	7	9.6	24	13.2	83	7.9
My school does not have enough staff to support the transition process	68	7.8	2	2.5	1	1.4	27	17.1	98	8.3
My school does not have enough financial resources to support the transition process	95	10.9	4	5.0	0	0.0	30	19.0	129	10.9
School administrators provide little support for students' transition	76	8.7	3	3.8	5	6.8	18	11.4	102	8.6
There is lack of professional development activities related to transition	67	7.7	4	5.0	4	5.5	10	6.3	85	7.2
Heavy teaching loads limit the level of transition support	53	6.1	4	5.0	2	2.7	13	8.2	72	6.1
There is little or no collaboration with external agencies in the transition process	75	8.6	2	2.5	3	4.1	33	20.9	113	9.5
There are no clear transition guidelines in my school	78	8.9	2	2.5	8	11.0	38	24.1	126	10.6
It is difficult to align academic subjects with postsecondary goals	73	8.3	7	8.8	6	8.2	18	11.4	104	8.8

Note. Percentages represent data reported by category and totals.

clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, six guidance and counseling teachers (8.2%) answered “Do Not Know.”

Twenty-four (24) vocational teachers (15.2%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. Twenty-seven (27) vocational teachers (17.1%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another 30 (19.0%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, 18 vocational teachers (11.0%) answered “Do Not Know.” Again, 10 (6.3%) answered “Do Not Know” concerning whether there was a lack of professional development activities related to transitions. Regarding the perception that heavy teaching loads limited the level of transition support, 13 vocational teachers (8.2%) selected “Do Not Know.” Thirty-three (33) vocational teachers (20.9%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, 38 (24.1%) answered “Do Not Know” concerning the perception that there were no clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, 18 vocational teachers (11.4%) answered “Do Not Know.”

No teacher position group responded to any of these questions with a percentage of “Do Not Know” responses at or above the 25% benchmark for professional development and awareness needs. Thus, no professional training and awareness are warranted. The findings indicate that participants understood transition challenges and barriers for students with disabilities in Botswana.

Table 79 shows summary statistics by school type for the “Do Not Know” responses to perceptions on transition barriers for participants. Thirty-seven (37) junior secondary teachers

(4.8%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. Forty-two (42) junior secondary teachers (5.5%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another 66 (8.6%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, 67 junior secondary teachers (8.7%) answered “Do Not Know.” Again, 57 (7.4%) answered “Do Not Know” concerning whether there was a lack of professional development activities related to transitions. Regarding the perception that heavy teaching loads limited the level of transition support, 48 junior secondary teachers (6.2%) selected “Do Not Know” as their answer. Fifty-eight (58) junior secondary teachers (7.5%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, 66 (8.6%) answered “Do Not Know” concerning the perception that there were no clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, 62 junior secondary teachers (8.1%) answered “Do Not Know.”

Twenty-two (22) senior secondary teachers (8.5%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. Twenty-nine (29) senior secondary teachers (11.2%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another 33 (12.8%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, 17 senior secondary teachers (6.6%) answered

“Do Not Know.” Again, 18 (7.0%) answered “Do Not Know” concerning whether there was a lack of professional development activities related to transition. Regarding the perception that heavy teaching loads limited the level of transition support, 11 senior secondary teachers (4.3%) selected “Do Not Know.” Twenty-two (22) senior secondary teachers (8.5%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, 22 (8.5%) answered “Do Not Know” concerning the perception that there were no clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, 24 senior secondary teachers (9.3%) answered “Do Not Know.”

Twenty-four (24) vocational school teachers (15.2%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. Twenty-seven (27) vocational school teachers (17.1%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another 30 (19.0%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, 18 vocational school teachers (11.0%) answered “Do Not Know.” Further, 10 teachers (6.3%) answered “Do Not Know” concerning whether there was lack of professional development activities related to transitions. Regarding the perception that heavy teaching loads limited the level of transition support, 13 vocational school teachers (8.2%) selected “Do Not Know.” Thirty-three (33) vocational school teachers (20.9%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, 38 (24.1%) answered “Do Not Know” concerning the perception that there were no clear transition

Table 79

Percentages of “Do Not Know” Responses on Perceptions About Transition Barriers by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Vocational School (n=158)		Total (N=1186)	
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
I am inadequately trained to support the transition process	37	4.8	22	8.5	24	15.2	83	7.0
My school does not have enough staff to support the transition process	42	5.5	29	11.2	27	17.1	98	8.3
My school does not have enough financial resources to support the transition process	66	8.6	33	12.8	30	19.0	129	10.9
School administrators provide little support for students' transition	67	8.7	17	6.6	18	11.4	102	8.6
There is lack of professional development activities related to transition	57	7.4	18	7.0	10	6.3	85	7.2
Heavy teaching loads limit the level of transition support	48	6.2	11	4.3	13	8.2	72	6.1
There is little or no collaboration with external agencies in the transition process	58	7.5	22	8.5	33	20.9	113	9.5
There are no clear transition guidelines in my school	66	8.6	22	8.5	38	24.1	126	10.6

Table 79 *continued*

Percentages of “Do Not Know” Responses on Perceptions About Transition Barriers by School Type

	Junior Secondary School (n=770)		Senior Secondary School (n=258)		Vocational School (n=158)		Total (N=1186)	
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
It is difficult to align academic subjects with postsecondary goals	62	8.1	24	9.3	18	11.4	104	8.8

Note. Percentages represent data reported by category and totals.

guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, 18 vocational school teachers (11.4%) answered “Do Not Know.”

Overall, the results showed that there were no “Do Not Know” response percentages to these questions sorted by type of school that met the 25% cut-off point. The “Do Not Know” percentages ranged from 4.3-24.1%. These findings support the conclusion that participants understood barriers experienced by students with disabilities, especially those with visual impairments, and how these barriers negatively impact transition planning and programming that are necessary for successful post-school outcomes.

Table 80 shows the summary statistics by school region for the “Do Not Know” responses to perceptions on transition barriers. Thirteen (13) Kgatleng region teachers (2.7%) selected “Do Not Know” when asked if they believed that they were inadequately trained to

support the transition process. Seventeen (17) Kgatleng region teachers (3.6%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another 23 (4.9%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, 29 Kgatleng region teachers (6.1%) answered “Do Not Know.” Again, 20 (4.2%) answered “Do Not Know” concerning whether there was lack of professional development activities related to transitions. Regarding the perception that heavy teaching loads limited the level of transition support, 17 Kgatleng region teachers (3.6%) selected “Do Not Know.” Twenty-two (22) Kgatleng region teachers (4.6%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, 27 (5.7%) answered “Do Not Know” concerning the perception that there were no clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, 30 Kgatleng region teachers (6.3%) answered “Do Not Know.”

Seventy (70) South East region teachers (9.8%) selected “Do Not Know” when asked if they believed that they were inadequately trained to support the transition process. Eighty-one (81) South East region teachers (11.4%) selected “Do Not Know” regarding the perception that their schools did not have enough staff to support the transition process. Another 106 (14.9%) answered “Do Not Know” concerning the perception that their schools did not have enough financial resources to support the transition process. When asked whether school administrators provided little support for students’ transition, 73 South East region teachers (10.3%) answered “Do Not Know.” Further, 65 (9.1%) answered “Do Not Know” concerning whether there was a

Table 80

Percentages of “Do Not Know” Responses on Perceptions About Transition Barriers by School Region

	Kgatleng Region (n=474)		South East Region (n=712)		Total (N=1186)	
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>N</i>	<i>%</i>
I am inadequately trained to support the transition process	13	2.7	70	9.8	83	7.0
My school does not have enough staff to support the transition process	17	3.6	81	11.4	98	8.3
My school does not have enough financial resources to support the transition process	23	4.9	106	14.9	129	10.9
School administrators provide little support for students’ transition	29	6.1	73	10.3	102	8.6
There is lack of professional development activities related to transition	20	4.2	65	9.1	85	7.2
Heavy teaching loads limit the level of transition support	17	3.6	55	7.7	72	6.1
There is little or no collaboration with external agencies in the transition process	22	4.6	91	12.8	113	9.5
There are no clear transition guidelines in my school	27	5.7	99	13.9	126	10.6
It is difficult to align academic subjects with postsecondary goals	30	6.3	74	10.4	104	8.8

Note. Percentages represent data reported by category and totals.

lack of professional development activities related to transition. Regarding the perception that heavy teaching loads limited the level of transition support, 55 South East region teachers (7.7%) selected “Do Not Know.” Ninety-one (91) South East region teachers (12.8%) selected “Do Not Know” regarding whether they perceived that there was little or no collaboration with external agencies in the transition process. Moreover, 99 (13.9%) answered “Do Not Know” concerning the perception that there were no clear transition guidelines in their schools. When asked whether they believed that it was difficult to align academic subjects with postsecondary goals, 74 South East region teachers (10.4%) answered “Do Not Know.”

The “Do Not Know” response percentages on these items ranged from 2.7-14.9% by school region. No results met the 25% cut-off point. The findings indicate that participants understood transition challenges and barriers for students with disabilities in Botswana.

Participants’ Differences on Transition Planning Barriers

Overall, participants in this study agreed that they perceived the following as negatively impacting transition planning, service provision, and therefore post-school outcomes for students with disabilities: (a) inadequate training to support the transition process ($M=2.93$); (b) not enough staff to support the transition process ($M=3.13$); (c) not enough financial resources to support the transition process ($M=3.25$); (d) limited transition support from school administrators ($M=3.03$); (e) a lack of professional development activities related to student transitions ($M=3.22$); (f) heavy teaching loads limiting the level of transition support ($M=3.21$); (g) little or no collaboration with external agencies in the transition process ($M=3.17$); (h) no clear transition guidelines ($M=3.20$); and (i) difficulties aligning academic subjects with postsecondary goals ($M=3.04$).

Table 81 displays results from Kruskal-Wallis tests conducted by teacher position on questions 77 to 85 (junior secondary schools), 71 to 79 (senior secondary schools), and questions 76 to 84 (vocational schools) to determine statistical differences in participants' perceptions of barriers to effective implementation of transition practices. General education teachers, special education teachers, guidance and counseling teachers, and vocational teachers tended to agree or agreed ($M=2.54-3.01$) that they were inadequately trained to support the transition process. Respondents' answers differed significantly by teacher position ($\chi^2= 18.18, df=3, p<.05$), with a small effect size (0.13). Results of a Mann Whitney U post hoc test demonstrated that general education teachers differed significantly from special education and vocational teachers. General education teachers agreed more ($M=3.01$) than special education teachers ($M=2.54$) that they were inadequately trained to support the transition process ($z=-3.14, p<.01$). General education teachers ($M=3.01$) also showed more agreement than vocational teachers ($M=2.73$) on this item ($z=-3.21, p<.01$). Participants tended to agree or agreed ($M=2.76-3.29$) that their schools did not have enough staff to support the transition process. Responses varied significantly by teacher position ($\chi^2= 9.43, df=3, p<.05$). Results from a Mann Whitney U test comparing position groups supported the conclusion that guidance and counseling teachers differed significantly from general education and special education teachers. Special education and vocational teachers also varied significantly on this item. General education teachers showed more agreement ($M=3.16$) than guidance and counseling teachers ($M=2.76$) that their schools did not have enough staff to support the transition process ($z=-2.11, p<.05$). Special education teachers ($M=3.29$) also showed more agreement than guidance and counseling teachers ($M=2.76$) on this item ($z=-2.63, p<.05$). Special education teachers also had a higher agreement level ($M=3.29$) than vocational teachers ($M=3.04$) on the same item ($z=-2.18, p<.05$).

Participants agreed ($M=3.09-3.37$) that their schools did not have enough financial resources to support the transition process. Responses did not vary significantly by teacher position ($\chi^2= 6.38, df=3, p>.05$). Regarding the statement that school administrators provided little support for students' transition, participants tended to agree or agreed ($M=2.81-3.09$). Respondents' answers differed significantly between position groups ($\chi^2= 13.31, df=3, p<.05$), although with a small effect size (0.11). Results from a Mann Whitney U post hoc test supported the conclusion that guidance and counseling teachers differed significantly from general education and vocational teachers. General education teachers agreed more ($M=3.06$) than guidance and counseling teachers ($M=2.81$) that school administrators provided little support for students' transitions ($z=-3.27, p<.01$). Vocational teachers ($M=3.09$) also showed more agreement than guidance and counseling teachers ($M=2.81$) on this item ($z=-3.30, p<.05$). Participants also agreed ($M=3.16-3.24$) that there was lack of professional development activities related to transitions. Responses did not vary significantly between position groups on this item ($\chi^2= 3.75, df=3, p>.05$). In addition, participants tended to agree or agreed ($M=2.88-3.35$) that heavy teaching loads limited the level of transition support. Respondents' answers did not differ significantly between position groups on this item ($\chi^2= 5.28, df=3, p>.05$). Most participants tended to agree or agreed ($M=2.88-3.22$) that there was little or no collaboration with external agencies in the transition process. Responses did not vary significantly between position groups on this item ($\chi^2= 6.25, df=3, p>.05$).

Again, participants tended to agree or agreed ($M=2.98-3.25$) that there were no clear transition guidelines in their schools. Responses did not vary significantly between position groups on this item ($\chi^2= 2.66, df=3, p>.05$). Participants tended to disagree, tended to agree, or agreed ($M=2.46-3.15$) that it was difficult to align academic subjects with postsecondary goals.

Table 81

*Kruskal-Wallis Analysis of Respondents' Perceptions About Transition Barriers by Teacher**Position*

	General Education Teacher (n=875)			Special Education Teacher (n=80)			Guidance and Counseling Teacher (n=73)			Vocational Teacher (N=158)					
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post- school outcomes for students with disabilities:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
I am inadequately trained to support the transition process	825	3.01	1.00	78	2.54	1.22	66	2.89	1.04	134	2.73	1.01	3	18.18	0.13
My school does not have enough staff to support the transition process	807	3.16	0.91	78	3.29	0.96	72	2.76	1.25	131	3.04	1.00	3	9.43	0.09
My school does not have enough financial resources to support the transition process	780	3.26	0.85	76	3.22	1.12	73	3.37	0.64	128	3.09	0.93	3	6.38	0.08
School administrators provide little support for students' transition	799	3.06	0.88	77	2.82	1.14	68	2.81	0.65	140	3.09	0.97	3	13.31	0.11
There is lack of professional development activities related to transition	808	3.22	0.80	76	3.18	1.10	69	3.16	0.70	148	3.24	0.91	3	3.75	0.06
Heavy teaching loads limit the level of transition support	822	3.24	0.88	76	2.88	1.22	71	3.35	0.61	145	3.12	0.97	3	5.28	0.07

Table 81 *continued**Kruskal-Wallis Analysis of Respondents' Perceptions About Transition Barriers by Teacher**Position*

	General Education Teacher (<i>n</i> =875)			Special Education Teacher (<i>n</i> =80)			Guidance and Counseling Teacher (<i>n</i> =73)			Vocational Teacher (<i>N</i> =158)					
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:</i>															
There is little or no collaboration with external agencies in the transition process	800	3.22	0.84	78	3.12	1.07	70	3.07	0.97	125	2.88	1.18	3	6.25	0.08
There are no clear transition guidelines in my school	797	3.23	0.84	78	3.15	1.12	65	3.25	0.79	120	2.98	1.14	3	2.66	0.05
It is difficult to align academic subjects with postsecondary goals	802	3.15	0.85	73	2.78	1.16	67	3.07	0.68	140	2.46	1.13	3	50.45	0.22

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Responses varied significantly between position groups on this item ($\chi^2 = 50.45$, $df = 3$, $p < .05$), with a small effect size (0.22). Results from a Mann Whitney *U* post hoc test supported the conclusion that vocational teachers differed from general, special, and guidance and counseling teachers. Additionally, general and special education teachers also varied significantly on this item. General education teachers agreed more ($M = 3.15$) than vocational teachers ($M = 2.46$) that it was difficult to align academic subjects with postsecondary goals ($z = -6.86$, $p < .01$). Special education teachers ($M = 2.78$) also showed more agreement than vocational teachers ($M = 2.46$) on

this item ($z=-2.03, p<.05$). Guidance and counseling teachers agreed more ($M=3.07$) than vocational teachers ($M=2.46$) that it was difficult to align academic subjects with postsecondary goals ($z=-3.47, p<.01$). General education teachers ($M=3.15$) also showed more agreement than special education teachers ($M=2.78$) on this item ($z=-2.35, p<.05$).

Table 82 displays results from Kruskal-Wallis tests conducted by school type on questions 77 to 85 (junior secondary schools), 71 to 79 (senior secondary schools), and questions 76 to 84 (vocational schools) to determine statistical differences in participants' perceptions of barriers to effective implementation of transition practices. Junior secondary teachers, senior secondary teachers, and vocational school teachers tended to agree or agreed ($M=2.73-3.31$) that they were inadequately trained to support the transition process. Responses differed significantly by school type ($\chi^2= 60.34, df=2, p<.05$) with a small effect size (0.23). Results from a Mann Whitney *U* post hoc test demonstrated that senior secondary teachers differed significantly from junior secondary and vocational school teachers. Senior secondary teachers agreed more ($M=3.31$) than junior secondary teachers ($M=2.85$) that they were inadequately trained to support the transition process ($z=-7.28, p<.01$). Senior secondary teachers ($M=3.31$) also showed more agreement than vocational school teachers ($M=2.73$) on this item ($z=-6.20, p<.01$).

Participants agreed ($M=3.04-3.40$) that their schools did not have enough staff to support the transition process. Respondents' answers differed significantly by school type ($\chi^2= 40.89, df=2, p<.05$), with a small effect size (0.19). Results of a Mann Whitney *U* test comparing school types supported the conclusion that senior secondary teachers differed significantly from junior secondary and vocational school teachers. Senior secondary teachers agreed more ($M=3.40$) than junior secondary teachers ($M=3.06$) that their schools did not have enough staff to support the transition process ($z=-6.31, p<.01$). Senior secondary teachers ($M=3.40$) also agreed more than

vocational school teachers ($M=3.04$) on this item ($z=-4.33, p<.01$). Participants agreed ($M=3.09-3.48$) that their schools did not have enough financial resources to support the transition process. Responses varied significantly by school type ($\chi^2=43.13, df=2, p<.05$), with a small effect size (0.20). Results from a Mann Whitney U follow-up test supported the conclusion that senior secondary teachers varied significantly different from junior secondary and vocational school teachers. Senior secondary teachers agreed more ($M=3.48$) than junior secondary teachers ($M=3.20$) that their schools did not have enough financial resources to support the transition process ($z=-6.20, p<.01$). Senior secondary teachers ($M=3.48$) also showed more agreement than vocational school teachers ($M=3.09$) on this item ($z=-5.16, p<.01$).

Regarding the statement that school administrators provided little support for students' transitions, participants tended to agree or agreed ($M=2.91-3.35$). Responses differed significantly by school type on this item ($\chi^2=66.52, df=2, p<.05$), with a small effect size (0.25). Results from a Mann Whitney U post hoc test demonstrated that junior secondary teachers, senior secondary teachers, and vocational school teachers differed significantly from each other. Senior secondary teachers agreed more ($M=3.35$) than junior secondary teachers ($M=2.91$) that school administrators provided little support for students' transitions ($z=-8.02, p<.01$). Vocational school teachers ($M=3.09$) also showed more agreement than junior secondary teachers ($M=2.91$) on this item ($z=-3.04, p<.01$). Senior secondary teachers ($M=3.35$) showed more agreement than vocational school teachers ($M=3.09$) on the same item ($z=-3.20, p<.01$). In addition, participants agreed ($M=3.10-3.54$) that there was lack of professional development activities related to transitions. Respondents' answers differed significantly by school type on this item ($\chi^2=73.21, df=2, p>.05$), with a small effect size (0.26). Results of a Mann Whitney U post hoc test supported the conclusion that junior secondary teachers, senior secondary teachers,

Table 82

Kruskal-Wallis Analysis of Respondents' Perceptions About Transition Barriers by School Type

	Junior Secondary School (n=770)			Senior Secondary School (n=258)			Vocational School (n=158)					
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	χ^2	<i>w</i>
I am inadequately trained to support the transition process	733	2.85	1.01	236	3.31	1.01	134	2.73	1.01	2	60.34	0.23
My school does not have enough staff to support the transition process	728	3.06	0.93	229	3.40	0.96	131	3.04	1.00	2	40.89	0.19
My school does not have enough financial resources to support the transition process	704	3.20	0.84	225	3.48	0.90	128	3.09	0.93	2	43.13	0.20
School administrators provide little support for students' transition	703	2.91	0.86	241	3.35	0.93	140	3.09	0.97	2	66.52	0.25
There is lack of professional development activities related to transition	713	3.10	0.81	240	3.54	0.77	148	3.24	0.91	2	73.21	0.26
Heavy teaching loads limit the level of transition support	722	3.09	0.91	247	3.61	0.78	145	3.12	0.97	2	89.51	0.28
There is little or no collaboration with external agencies in the transition process	712	3.11	0.84	236	3.48	0.90	125	2.88	1.18	2	61.80	0.24
There are no clear transition guidelines in my school	704	3.12	0.87	236	3.53	0.77	120	2.98	1.14	2	52.76	0.22
It is difficult to align academic subjects with postsecondary goals	708	3.03	0.85	234	3.38	0.89	140	2.46	1.13	2	83.27	0.28

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

and vocational school teachers varied significantly. Senior secondary teachers agreed more ($M=3.54$) than junior secondary teachers ($M=3.10$) that there was lack of professional development activities related to transition ($z=-8.48$, $p<.01$). Vocational school teachers ($M=3.24$) also showed more agreement than junior secondary teachers ($M=3.10$) on this item

($z=-2.80, p<.01$). Senior secondary teachers ($M=3.54$) showed more agreement than vocational school teachers ($M=3.24$) on the same item ($z=-3.87, p<.01$).

Participants agreed ($M=3.09-3.61$) that heavy teaching loads limited the level of transition support. Responses varied significantly by school type on this item ($\chi^2= 89.51, df=2, p<.05$), with a small effect size (0.28). Results of a Mann Whitney *U* post hoc test demonstrated that senior secondary teachers differed significantly from junior secondary and vocational school teachers. Senior secondary teachers agreed more ($M=3.61$) than junior secondary teachers ($M=3.09$) that heavy teaching loads limited the level of transition support ($z=-9.50, p<.01$). Senior secondary teachers ($M=3.61$) also showed more agreement than vocational school teachers ($M=3.12$) on the same item ($z=-6.00, p<.01$). Again, participants tended to agree or agreed ($M=2.88-3.48$) that there was little or no collaboration with external agencies to support the transition process. Responses varied significantly by school type on this item ($\chi^2= 61.80, df=2, p<.05$) with a small effect size (0.24). Results of a Mann Whitney *U* post hoc test demonstrated that senior secondary teachers differed significantly from junior secondary and vocational school teachers. Senior secondary teachers agreed more ($M=3.48$) than junior secondary teachers ($M=3.11$) that there was little or no collaboration with external agencies to support the transition process ($z=-7.72, p<.01$). Senior secondary teachers ($M=3.48$) also agreed more than vocational school teachers ($M=2.88$) on this item ($z=-5.41, p<.01$).

Participants tended to agree or agreed ($M=2.98-3.53$) that there were no clear transition guidelines in their schools. Responses differed significantly by school type on this item ($\chi^2= 52.76, df=2, p<.05$), with a small the effect size (0.22). Results from a Mann Whitney *U* post hoc test supported the conclusion that senior secondary teachers differed significantly from junior secondary and vocational school teachers. Senior secondary teachers agreed more ($M=3.53$) than

junior secondary teachers ($M=3.12$) that there were no clear transition guidelines in their schools ($z=-7.29, p<.01$). Senior secondary teachers ($M=3.53$) also showed more agreement than vocational school teachers ($M=2.98$) on this item ($z=-4.50, p<.01$). Moreover, participants tended to disagree, tended to agree, or agreed ($M=2.46-3.38$) that it was difficult to align academic subjects with postsecondary goals. Respondents' answers differed significantly by school type on this item ($\chi^2=83.27, df=2, p<.05$), with a small effect size (0.28). Results from a Mann Whitney U post hoc test showed that junior secondary teachers, senior secondary teachers, and vocational school teachers varied significantly in responses. Senior secondary teachers agreed more ($M=3.38$) than junior secondary teachers ($M=3.03$) that it was difficult to align academic subjects with postsecondary goals ($z=-6.62, p<.01$). Junior secondary teachers ($M=3.03$) also showed more agreement than vocational school teachers ($M=2.46$) on this item ($z=-5.53, p<.01$). Senior secondary teachers ($M=3.38$) showed more agreement than vocational school teachers ($M=2.46$) on the same item ($z=-3.87, p<.01$).

Table 83 presents results from a Mann Whitney U test conducted by school region on questions 77 to 85 (junior secondary schools), 71 to 79 (senior secondary schools), and questions 76 to 84 (vocational schools) to determine statistical differences in participants' perceptions of barriers to effective implementation of transition practices. Kgatleng region teachers and South East region teachers tended to agree or agreed ($M=2.86-3.03$) that they were inadequately trained to support the transition process. Responses varied significantly by school region ($z=-2.32, df=2, p<.05$). South East region teachers agreed more ($M=3.03$) than Kgatleng region teachers ($M=2.86$) that they were inadequately trained to support the transition process. Participants agreed ($M=3.07-3.22$) that their schools did not have enough staff to support the transition process, with a significant difference reported by school region ($z=-1.98, df=2, p<.05$). South

Table 83

Mann Whitney U Analysis of Respondents' Perceptions About Transition Barriers by School

Region

	Kgatleg Region (n=474)			South East Region (n=712)					
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post- school outcomes for students with disabilities:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
I am inadequately trained to support the transition process	461	2.86	0.97	642	3.03	1.06	2	-2.32	0.17
My school does not have enough staff to support the transition process	457	3.07	0.88	631	3.22	1.00	2	-1.98	0.16
My school does not have enough financial resources to support the transition process	451	3.25	0.85	606	3.25	0.89	2	-0.38	0.00
School administrators provide little support for students' transition	445	2.98	0.82	639	3.12	0.95	2	-2.03	0.16
There is lack of professional development activities related to transition	454	3.25	0.78	647	3.20	0.87	2	-0.46	0.06
Heavy teaching loads limit the level of transition support	457	3.25	0.84	657	3.18	0.96	2	-0.53	0.08
There is little or no collaboration with external agencies in the transition process	452	3.09	0.80	621	3.27	0.99	2	-2.45	0.20
There are no clear transition guidelines in my school	447	3.28	0.82	613	3.13	0.96	2	-1.96	0.17

Table 83 *continued**Mann Whitney U Analysis of Respondents' Perceptions About Transition Barriers by School**Region*

	Kgatlang Region (<i>n</i> =474)			South East Region (<i>n</i> =712)					
<i>I perceive the following as negatively impacting on transition planning, service provision, and therefore post- school outcomes for students with disabilities:</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>z</i>	<i>d</i>
It is difficult to align academic subjects with postsecondary goals	444	3.11	0.86	638	2.99	0.99	2	-1.49	0.13

*Note.** $p < .05$. ** $p < .01$. *** $p < .001$.

East region teachers agreed more ($M=3.22$) than Kgatleng region teachers ($M=3.07$) that their schools did not have enough staff to support the transition process.

Participants agreed ($M=3.25$) that their schools did not have enough financial resources to support the transition process. Respondents' answers did not differ significantly by school region ($z=-.38$, $df=2$, $p>.05$). Furthermore, participants tended to agree or agreed ($M=2.98$ - 3.12) that school administrators provided little support for students' transitions. Respondents' answers differed significantly by school region on this item ($z=-2.03$, $df=2$, $p<.05$). South East region teachers agreed more ($M=3.12$) than Kgatleng region teachers ($M=2.98$) that school administrators provided little support for students' transition. In addition, participants agreed ($M=3.20$ - 3.25) that there was a lack of professional development activities related to transition. Responses did not vary significantly by school region on this item ($z=-.46$, $df=2$, $p>.05$).

Participants agreed that heavy teaching loads limited the level of transition support, ($M=3.18-3.25$). Respondents' answers did not differ significantly between teachers by school region on this item ($z=-.53$, $df=2$, $p>.05$). Again, participants agreed ($M=3.09-3.27$) that there was little or no collaboration with external agencies to support the transition process. Respondents' answers differed significantly between school regions ($z=-2.45$, $df=2$, $p<.05$), although only a small effect size (0.20). South East region teachers agreed more ($M=3.27$) than Kgatleng region teachers ($M=3.09$) that there was little or no collaboration with external agencies to support the transition process. Participants agreed ($M=3.13-3.28$) that there were no clear transition guidelines in their schools. Responses did not vary significantly by school region on this item ($z=-1.96$, $df=2$, $p>.05$). Moreover, participants tended to agree or agreed ($M=2.99-3.11$) that it was difficult to align academic subjects with postsecondary goals. Respondents' answers did not differ significantly by school region was found on this item ($z=-1.49$, $df=2$, $p>.05$).

CHAPTER 5 – DISCUSSION AND RECOMMENDATIONS

The nature of this study was exploratory and it utilized a survey research method. This study explored the experiences and views of secondary school teachers and vocational teachers in assisting students with disabilities to transition from secondary and vocational school to higher education and/or employment in Botswana. The study further explored teachers' knowledge, beliefs, and perceptions about what practices and principles contributed to or impeded successful postsecondary education and/or employment outcomes of students with disabilities, specifically those with visual impairments at secondary schools. The study examined differences between general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers in their knowledge, experiences, and practices that resulted in successful post-school outcomes. In addition, academic and functional curriculum taught to students and other transition services aimed at improving postsecondary outcomes were explored.

The researcher visited participating schools in Botswana to administer a paper and pencil survey. The survey instruments were designed in parallel form for junior secondary, senior secondary, and vocational schools. Descriptive statistics as well as more advanced inferential analyses were conducted on the data. Four key research questions were formulated to guide the study. The research questions examined the views and beliefs of secondary and vocational teachers regarding how secondary and vocational students with disabilities were prepared to transition successfully to assume adult roles. Transition services, practices, and principles were aligned with IDEA (2004) transition requirements, Halpern's (1994) transition definition, and Kohler's (1996) essential components for effective transition planning and programming. Moreover, transition components from the literature, such as evidence-based practices and predictors of post-school outcomes (Test et al., 2009), transition planning, services, and

outcomes for students with disabilities related to postsecondary education or employment (Benz et al., 2000; Brooke et al., 2009), post-school outcomes of transition-age youths with visual impairments (Connors et al., 2014; McDonnall, 2010a, 2010b, 2011), and transition challenges for students with disabilities (Reed & Curtis, 2011) were utilized in this study.

Sample and Returns

The paper and pencil survey was administered by the researcher in location and the entire administration period occurred from May 22, 2017, to July 10, 2017, lasting for about seven weeks. The survey was administered in two school regions in Botswana. The researcher sent permission request letters to several government ministries in Botswana, including the Ministry of Basic Education; Ministry of Employment, Labor Productivity, and Skills Development; and Ministry of Tertiary Education, Research, Science, and Technology (see Appendix A). Permission request letters were also sent to the regional directors of each school region before conducting the survey. Each selected school's headmaster or principal received official letters concerning the study and they were notified of the intent to visit their schools in order to complete the research questionnaire on particular dates. Once approval was obtained from the authorities in Botswana (see Appendices B-NN), phone calls were made to the headmasters and principals of the participating schools a week before the actual survey was distributed to remind the schools about the survey completion date and time. The survey items and responses were coded and analyzed using SPSS Version 24. The number of general education teachers who responded to the survey was 875. There were 80 special education teachers and 73 guidance and counseling teachers who completed the survey. Moreover, 158 vocational teachers were involved in the survey completion. Thus, 1,186 participants completed the paper and pencil survey. The focus of the survey was on transition for students with disabilities with an emphasis on students

with visual impairments. Three school levels/types were involved in this study, namely, junior secondary, senior secondary, and vocational schools. Surveys were color coded and numerically coded for easy distribution to participants in each site. The number of participants who actually completed the survey was 1,186 out of a total of 1,760 possible participants, thus resulting in a return rate of 67.4% (Table 1). The descriptive statistics used to analyze data for this study included frequencies and percentages. Kruskal-Wallis and Mann Whitney *U* tests were utilized to determine differences between views and beliefs of participants in various groups. Whenever a Kruskal-Wallis test revealed a significant difference, Mann Whitney *U* tests were used as follow-up.

Discussion

The discussion that follows indicates study findings concerning teachers' views and beliefs on transition principles and practices that allow students with disabilities to transition successfully to post-school settings in Botswana with reference to relevant literature. The discussion also includes participants' transition knowledge, perceptions about current transition practices, specific transition strategies for students with visual impairments, and transition barriers.

Participants' Views, Beliefs, and Knowledge of Transition Principles and Practices

The findings from this study showed that there were no significant differences for most items between special education teachers and guidance and counseling teachers concerning their views, and beliefs of transition practices and principles (Table 9). The only difference found was that guidance and counseling teachers showed more agreement than special education teachers that a variety of activities are needed in the transition planning process. Moreover, significant differences were found between general education teachers and special education teachers, as

well as between general education teachers and guidance and counseling teachers, regarding transition views and beliefs. Special education teachers and guidance and counseling teachers had a higher rating, showing that they agreed more than general education teachers that transition planning should include a written plan for each individual with a disability. Special education teachers showed more agreement than general education teachers that transition planning should include a variety of activities to help students transition to employment. Also, special education teachers and guidance and counseling teachers had more agreement than general education teachers that transition should include specific goals and objectives corresponding to specific post-school outcomes. These are meaningful findings, since literature has indicated that special education teachers should play a leading role in the transition process. Hence, it follows that to be in the forefront of transition planning, it is advantageous for special education teachers more than other professionals to have positive views concerning transition practices and principles. In Botswana, while special education teachers are expected to spearhead school programs for students with disabilities, lack of coordination and collaborative efforts have been reported between special education teachers and other professionals (Dart, 2007; Dart et al., 2002; Kisanji, 2003). This may be a possible explanation of the gap between the knowledge levels of special educators and general educators, as general education teachers may understand transition practices and principles slightly differently from their special education counterparts.

It is important to note that the key to successful implementation of transition services and supports lies in whether or not transition is clearly understood. The understanding and knowledge of transition lies in communicating not only with one another in special education but also with students, parents, families, and other professionals and stakeholders outside the field (Clark, 2007; Rowe et al., 2015). Moreover, guidance and counseling teachers agreed more than

general education teachers that transition planning should include the strengths, abilities, priorities, interests, and needs of each student. This is an interesting finding because one of the critical roles of counselors is to empower students with disabilities to be self-sufficient and independent (Rubin & Roessler, 2008). Combining transition components with career development that considers students' interests and strengths, appropriate preparation, and healthy and supportive relationships has consistently resulted in positive post-school outcomes (Agran et al., 2002; Noonan et al., 2008).

In general, the findings of this study suggest that participants in all three position groups were knowledgeable about transition practices and principles for students with disabilities. Participants in this study agreed that transition for students with disabilities to postsecondary settings should encompass the following components: (a) a written plan for each individual student with a disability; (b) a variety of activities to help transition to employment; (c) specific goals and objectives corresponding to specific post-school outcomes; (d) the strengths, abilities, priorities, interests, and needs of each student; (e) constant assessment resulting in securing employment after school; (f) teaching students both academic and functional skills; (g) postsecondary education and/or employment as the main outcomes following secondary school completion; (h) involvement of students' parents/families in transition planning and service delivery; and (i) collaboration with school staff and agencies outside the school.

The findings from this study suggest that there were significant differences between junior secondary and senior secondary teachers concerning only three transition components (Table 10). Junior secondary teachers showed more agreement than senior secondary teachers that transition planning should include a variety of activities to help students transition to employment. Junior secondary teachers agreed more than senior secondary teachers that teaching

students academic and functional skills was a key component of the transition planning process. Also, junior secondary teachers agreed more than senior secondary teachers that students' parents/families should be included in transition planning and service delivery. Regarding participants' views of and beliefs about transition practices and principles by school region, Kgatleng region teachers had more agreement than South East region teachers on all transition components (Table 11). This result may not be surprising, because according to Abosi (2000), a formal approach to special education in Botswana started in Mochudi, located in the Kgatleng region. This region has supported the education of students with disabilities for several decades and is well known for good special education programs.

Concerning transition knowledge, participants agreed that they had comprehensive knowledge and understanding of the transition process for students with disabilities concerning (a) monitoring of academic and functional skills outcome goals, (b) attaining academic and functional skills outcome goals, (c) a student's planning based on his/her strengths, abilities, priorities, interests, and needs, and (d) transition services and supports for students with disabilities after completion of secondary education.

Although participants in the current study indicated that they had comprehensive knowledge of the transition planning process, it is worth noting that there were significant differences between participants by position group. Special education teachers and guidance and counseling teachers showed more agreement than general education teachers that they had knowledge and understanding of transition for students with disabilities regarding monitoring of academic and functional skills outcome goals and that such goals can be attained (Table 15). Again, findings from the current study suggest that there were significant differences between junior secondary and senior secondary teachers regarding transition knowledge (Table 16).

Junior secondary teachers showed less agreement than senior secondary teachers that they had knowledge and understanding of transition for students with disabilities regarding monitoring of academic and functional skills outcome goals and that such goals can be attained. In addition, junior secondary teachers showed less agreement than senior secondary teachers that they had knowledge that a student's planning is based on his/her strengths, abilities, priorities, interests, and needs. Junior secondary teachers agreed less than senior secondary teachers that they had knowledge of transition services and supports for students with disabilities after completion of secondary education. Regarding participants' knowledge of the transition planning process by school region, Kgatleng region teachers had more agreement than South East region teachers on all transition knowledge areas (Table 17).

Research has suggested that teachers' knowledge of transition is critical for the successful implementation of transition programs for students with disabilities and therefore successful post-school outcomes (Morningstar & Mazzotti, 2014; Test et al., 2009). A critical role of special educators relates to the planning, coordination, and delivery of transition supports and services to students with disabilities (U.S. Department of Education, 2011). Literature has revealed there is inadequate knowledge among secondary special education teachers, thus negatively impacting on their successful implementation of effective transition program (Benitez et al., 2009; Knott & Asselin, 1999). As a result, teachers who lack adequate knowledge and skills regarding the planning and delivery of transition services may be negligently playing a role toward the unpleasant post-school outcomes of students with disabilities (Morningstar & Mazzotti, 2014).

Considering the fact that the roles of special education teachers continue to change, it is imperative to ensure that teacher education programs focus more on enhancing pre-service content relating to transition planning and service delivery. However, Anderson et al. (2003)

reported that only about 43% of special education programs offered a separate course focused on secondary transition. The development of personnel responsible for transition through both pre-service and in-service programs has been recognized as a pillar of the improvement of transition services (Blalock et al., 2003). Unfortunately, there has been no explicit guidance geared toward providing and maintaining high-quality strategies that prepare teachers with the transition knowledge and skills for enhancing post-school outcomes for students with disabilities.

Currently, Botswana does not have a legal mandate for the transition of students with disabilities. However, the RNPE of 1994 and the Inclusive Education Policy of 2011 are expected to provide a platform for enhancing access to and equity in quality education for all individuals, including those with disabilities, as well as ensuring that all students are able to complete basic education and advance, where possible, to senior secondary education and/or higher education or to vocational training with an aim for teachers to be equipped with the skills and resources that enable students with varying abilities to learn effectively. The goals of these education policies are consistent with the IDEA (2004), that all individuals should be provided with a free and appropriate public education. Secondary transition in Botswana is provided through junior secondary and senior secondary education programs to ensure that all students receive the necessary supports and services to help them to attain successful post-school outcomes (Casey, 1998; Dart, 2007). In order to ensure access and equity for all students, the government calls for collaborative work between the government, NGOs, and the private sector to develop and maintain an inclusive policy framework as well as to ensure that significant steps are taken to modify students' education, provide appropriate accommodations, improve skills development and vocational training, and provide appropriate learning/teaching aids and resources (Government of Botswana, 2011). One of the important objectives of the secondary

education system in Botswana is to effectively prepare students for life, citizenship, and the employment arena, as well as development and training of students that is responsive and consistent with the priority areas of the economy (Government of Botswana, 1994; MOESD, 2015). Although policy efforts have been ongoing for several years in Botswana to ensure access and equity for all individuals (MOESD, 2015), it is becoming evident that their intent of improving post-school outcomes for students with disabilities is not fully met.

Some participants in the current study indicated that they had no knowledge of transition practices and principles, as data showed that at most 19% of teachers selected “Do Not Know” concerning their knowledge on survey items on their views, beliefs, and knowledge of transition. For example, sixty-eight (68) general education teachers (7.8%), one (1) special education teacher (1.3%), and six (6) guidance and counseling teachers (8.2%) did not know that transition should include a written plan for each individual student with a disability. Although these numbers and percentages may seem insignificant, it may be critical to consider their implications for professional practice and training, particularly given that there is no legal mandate for transition practices and programming in Botswana. It is possible that even though teachers reported that they had knowledge of transition practices and principles, such knowledge may be based on routine teaching. Transition efforts may be occurring in an uncoordinated form, specifically for teachers who have not received comprehensive training in transition practices and principles. The findings of this study demonstrate that teachers’ transition knowledge is critical for the post-school success of students with disabilities. However, for the effective implementation of transition programs, services, and supports that result in successful post-school outcomes for students with disabilities, the process must occur in a coordinated fashion, with special educators spearheading the programs as suggested in literature.

Perceptions About Current Transition Practices for Students with Disabilities

The findings from this study showed that all participants disagreed that the current practices in their schools involved participation of students only in the transition planning process, or school staff only, or school staff and parents only, or school staff and other agencies only. Participants in this study agreed that transition practices in their schools involved participation of school staff, students, parents, and other agencies. Participants also agreed that current practices involved core and optional subjects that promoted successful post-school outcomes as well as inclusive education supports related to transition services provision. Secondary school participants in this study agreed that current transition practices in their schools involved academic and functional subject instruction related to postsecondary education, vocational education training and/or employment, while vocational school participants agreed that current practices in their schools involved academic and functional subject instruction related to higher education and/or employment.

These findings are consistent with professional literature, because empirical evidence regarding transition planning has suggested that improvement of postsecondary outcomes of transition-age youth with disabilities requires a collaborative team approach by educators, families, students, the community, and different stakeholders or agencies in the implementation process of a transition-focused education (Kohler et al., 2016). Student-focused transition planning entails students' involvement in IEPs, a comprehensive and appropriate course of study for each student, appropriate and clearly defined IEP goals, teaching of appropriate transition planning skills to students, as well as utilization of methodical and age-appropriate transition assessments (Morningstar & Mazzotti, 2014). Kohler and Field (2003) also indicated that best practices in student-focused planning related to the active involvement of students in the

formulation of transition goals and students' assessments of their progress toward desired goals. When students actively participate in transition planning, they are more likely to have enhanced self-determination and self-awareness, which are essential in preparing them to take control of their postsecondary plans after leaving high school (Morningstar et al., 2010; Test et al., 2009; Wehmeyer, Palmer, Soukup, Garner, & Lawrence, 2007).

Moreover, family involvement has been noted as a crucial component that gives families of students with disabilities opportunities to participate in the transition planning process and empowers them to assume significant roles in the process (Kohler, 1996; Rowe et al., 2013). Parental involvement has been identified in the literature as a postsecondary school predictor for success worthy of consideration when preparing teachers to involve and empower families in the transition planning process (Test et al., 2009). Rowe et al. (2013) noted the need for families, parents, and guardians to participate actively and be knowledgeable about the various aspects of transition planning, such as being a member of the decision-making team, support provision, and attendance at school meetings. It is worth noting that students whose families support their education have been found to have increased motivation for learning and academic self-confidence (Hoover-Dempsey et al., 2001), as well as enhanced academic performance (Sibley & Dearing, 2014; Simon, 2001). Again, empirical evidence has suggested that it is critical for schools to develop relationships and linkages with external agencies in order to improve students' post-school transition outcomes (Kohler, 1996; Rubin & Roessler, 2008). Important aspects that teachers should take into account when working with secondary students with disabilities include establishing relationships between external agencies and students and their families, an understanding of critical elements of interagency collaboration, and training that exceeds the boundaries of their disciplines. Interagency collaboration has been noted as a best-

practice intervention and a predictor of successful postsecondary education and employment for students with disabilities (Morgan et al., 2014; Morningstar & Clark, 2003; Test et al., 2009).

It is important to assess and teach students functional, academic, social, and vocational skills as a way of preparing them for adult life challenges (Kohler, 1996; Kohler & Field, 2003). Teachers are expected to teach and train students to prepare them for independent living and community participation, to equip them with employment skills, to help them gain work-based experiences, and to help students acquire academic and self-determination skills. Gay (2010) contended that teachers are responsible for the evaluation and training of students in transition-related skills focused on individual needs, teaching culturally appropriate strategies through an incorporation of cultural knowledge, previous experience, and learning styles of students from diverse backgrounds.

The data on teachers' perceptions of current transition practices for students with disabilities in their schools revealed several significant differences among teachers (Tables 25 & 28). For example, general education teachers and guidance and counseling teachers agreed more than special education teachers and vocational teachers that transition practices in their schools involved participation of school staff, students, parents, and other agencies. In addition, general education teachers and guidance and counseling teachers agreed more than vocational teachers that current practices involved core and optional subjects that promoted successful post-school outcomes. General education teachers agreed more than guidance and counseling teachers and vocational teachers that current transition practices involved inclusive education supports related to transition services provision. Among secondary teachers only, general education and special education teachers agreed more than guidance and counseling teachers that transition practices in their schools involved functional subject instructions related to postsecondary education,

vocational education training, and/or employment. A possible explanation of why general education teachers reported differences in their perceptions about current transition practices could be the lack of or limited special education background, thus making it difficult to understand and play significant roles in the transition planning process. The role of teachers is to facilitate effective transition programs and practices, including being able to understand and elicit support at all levels of the student's transition. If the needs of students with disabilities are to be met, it is critically important that teachers, administrators, and all school personnel adequately understand their roles in the evaluation and improvement of secondary transition programs (Test et al., 2009).

In general, results from the current study suggest that participants from the four position groups showed positive perceptions of transition practices for students with disabilities in their schools. It is evident from the study findings that students with disabilities were provided with some degree of transition support by their schools to prepare them to have successful post-school outcomes. Despite the fact that there was some level of transition support by teachers, the extent to which such transition supports and services were implemented is unclear. The study also indicated significant differences in participants' current transition practices by school type (Tables 26 & 29). Junior secondary and senior secondary teachers agreed more than vocational school teachers that transition practices in their schools involved participation of school staff, students, parents, and other agencies. This finding is to be expected, because students in Botswana are enrolled in vocational schools after completion of junior secondary or senior secondary education. Students who attend vocational schools after senior secondary education are usually at least eighteen years old and are regarded as adults, thus decreasing the level of parental involvement in their education affairs. Again, junior secondary and senior secondary

teachers agreed more than vocational school teachers that current practices involved core and optional subjects that promoted successful post-school outcomes. However, senior secondary teachers agreed more than junior secondary teachers and vocational school teachers that current transition practices involved inclusive education supports related to transition services provision. Specific to secondary schools, senior secondary teachers agreed more than junior secondary teachers that transition practices in their schools involved functional subject instructions related to postsecondary education, vocational education training, and/or employment.

Regarding participants' perceptions about current transition practices by school region (Tables 27, 30, & 35), Kgatleng region teachers agreed more than South East region teachers that transition practices in their schools involved participation of school staff, students, parents, and other agencies. Similarly, Kgatleng region teachers agreed more than South East region teachers that current practices in their schools involved core and optional subjects that promoted successful post-school outcomes as well as inclusive education supports related to the provision of transition services. In secondary schools only, Kgatleng region teachers agreed more than South East region teachers that transition practices in their schools involved academic subject instruction related to postsecondary education, vocational education training, and/or employment. However, regarding vocational school teachers, South East region teachers agreed more than Kgatleng region teachers that transition practices in their schools involved academic and functional subject instructions related to higher education and/or employment. The findings of this study suggest that teachers had diverse views about transition planning and that different school types and regions had varying perceptions on supporting the transition needs of students with disabilities. The "Do Not Know" findings of this study pointed to some critical areas of

transition planning, supports, and services where participants indicated their lack of knowledge and understanding about transition practices and principles.

Although the perceptions of participants of current transition practices revealed that there was some level of transition planning and implementation occurring in schools, there is also need for professional development activities and in-service training programs to help improve post-school outcomes for students with disabilities in Botswana. Participants showed varying levels of positive perceptions about transition supports for students with disabilities. This is consistent with existing literature that some secondary education teachers do not feel adequately prepared and equipped with the necessary skills to support transition for students with disabilities (Li et al., 2009; Lubbers, Repetto, & McGorray, 2008; Wolfe, Boone, & Blanchett, 1998).

The “Do Not Know” survey items indicated that some teachers in Botswana perceived themselves as inadequately prepared to support the transition of students with disabilities to have improved post-school outcomes. Although participants in the current study reported that they engaged in collaborative team efforts to support the transition of students with disabilities, it is possible judging from the study results that students may be prepared for post-school environments in an uncoordinated fashion based on daily routine teaching. Approaching secondary transition for students with disabilities in a coordinated form, as in the case of developed nations like the United States, may therefore be critical.

Beliefs About Specific Practices for Students with Visual Impairments

Findings from the current study showed that participants in this study leaned toward agreement that their current school programs prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills, use of assistive technology, orientation and mobility skills, social skills, and academic skills. Regarding equipping students with employment skills, it is worth noting that teachers were asked about four kinds of work experiences. These included unpaid work experiences inside the school, unpaid work experiences outside the school, paid work opportunities inside the school, and paid work opportunities outside the school. Participants also tended to agree that their schools provided students with visual impairments with unpaid work experiences inside the schools. These findings are somewhat consistent with existing literature conducted in the United States, because studies have shown that areas of the expanded core curriculum such as social skills, orientation and mobility, assistive technology, and independent living are critical for students with visual impairments (Huebner et al., 2004; Wolffe & Kelly, 2011).

Individuals with visual impairments typically learn social skills incidentally through vision. Hence, it is reasonable to include instruction in social skills during a student's IEP development. Social skills for individuals with visual impairment who can initiate, develop, and maintain relationships with others have been found to positively affect their employment outcomes (Botsford, 2013; Gothberg et al., 2015; Sacks & Wolffe, 2006). Regarding orientation and mobility skills for students with visual impairments, Cameto and Nagle (2007) contended that although instruction in these skills is critical, there was inadequate knowledge concerning the provision of this service to secondary school students enrolled in public schools. Also, assistive technology is highly emphasized as a critical component to include in a student's IEP

development (IDEA, 2004). When assistive technology is used appropriately, it can be of benefit to students with disabilities. For example, the NLTS2 data has revealed significant relationships between assistive technology use and postsecondary education enrollment and paid work (Wolffe & Kelly, 2011). Concerning self-determination, there has been growing evidence that suggested that an increase in this skill area may positively contribute to the improvement of students' outcomes, including academic achievement, employment status, participation in postsecondary education, and quality of life (Carter et al., 2006; Cmar, 2015; Gothberg et al., 2015; McDonnall & Crudden, 2009). In the same vein, the academic competence of youth with visual impairments has been linked to successful postsecondary transition outcomes (Connors et al., 2014; McDonnall, 2011; McDonnall & Crudden, 2009). Hence, if schools train students with visual impairments in self-determination skills, social skills, orientation and mobility skills, the use of assistive technology, and academic skills as suggested by the results of this study, students are more likely to have improved post-school outcomes.

It is, however, worth noting that participants tended to disagree that they believed that their school programs prepared students for successful post-school outcomes through providing students with unpaid work experiences outside the school and paid work opportunities within the school, as well as paid work opportunities outside the school. Participants also agreed that they believed that their current school programs prepared students with visual impairments for successful post-school outcomes through providing students with vocational instruction or training in employment skills. Although the findings of the present study suggest that schools tended to provide unpaid work experiences to students with visual impairments within the schools, this is not adequate to prepare students for post-school employment. This finding may partly help to explain why youths with visual impairments have been reported as one of the least

engaged compared to other disability classifications in the domain of employment only (Wagner et al., 2005). Work-based experiences or paid work and vocational training during secondary school have been found to be important predictors of successful employment outcomes for students with visual impairments (Connors et al., 2014; McDonnall, 2010a). This therefore calls for teachers to include school- and work-based experiences as significant areas of the education curriculum. School-based experiences (e.g., school-based enterprises, on-campus jobs) and work-based experiences (e.g., paid work experiences, volunteering, internships) (Baer et al., 2003; Benz et al., 2000) help to prepare students for successful post-school employment outcomes, thus prompting teachers to be knowledgeable about training students in employment skills. Unfortunately, students do not always have adequate opportunities to prepare for employment after secondary school (Lindstrom et al., 2011).

The data on teachers' beliefs about specific school transition practices for students with visual impairments revealed several significant differences among teachers (Tables 39 & 42). For example, general education teachers showed more agreement than special education teachers and guidance and counseling teachers that the current school programs prepared students with visual impairments for successful post-school outcomes through training students in the use of assistive technology. General education teachers tended to agree more than special education teachers, but less than guidance and counseling teachers, that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences within the schools. Vocational teachers tended to agree less than special education teachers and guidance and counseling teachers that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences within the schools. However, special education teachers showed less agreement than guidance and counseling teachers on this item.

Secondary school teachers disagreed more than vocational teachers that their school programs provided students with unpaid work experiences outside the schools or paid work opportunities within the schools. Furthermore, special education teachers disagreed more than general education teachers and guidance and counseling teachers on these items. Special education teachers and guidance and counseling teachers disagreed more than general education teachers and vocational teachers that their school programs prepared students for successful post-school outcomes through providing paid work opportunities outside the schools. Vocational teachers agreed more than general education teachers and guidance and counseling teachers that their current school programs prepared students for successful post-school outcomes through training of students in academic skills. In addition, special education teachers agreed more than general education teachers on this item. Specific to secondary teachers, general education teachers agreed more than special education teachers and guidance and counseling teachers that their current school programs prepared students for successful post-school outcomes through providing vocational instruction. Clearly, the results of the current study suggest there was some level of transition support for students with visual impairments in schools, as well as that teachers had mixed views concerning specific transition practices for this population.

Findings from the present study revealed several significant differences among participants by school type (Tables 40 & 43). Junior secondary teachers showed less agreement than senior secondary teachers and vocational school teachers that their current school programs prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills and academic skills. However, senior secondary teachers had a higher agreement level than vocational school teachers on these items. Senior secondary teachers showed more agreement than junior secondary and vocational school teachers that their

schools trained students with visual impairments in the use of assistive technology, orientation and mobility skills, and social skills as a way of preparing them for successful post-school outcomes. Junior secondary teachers tended to agree more than senior secondary teachers and vocational school teachers that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences within the schools. However, vocational school teachers tended to agree more than senior secondary teachers on this item. Senior secondary teachers disagreed more than junior secondary teachers and vocational school teachers that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences outside the schools and providing paid work opportunities within the schools. However, junior secondary teachers showed more disagreement than vocational school teachers on these items. Furthermore, junior secondary teachers disagreed more than senior secondary teachers and vocational school teachers that their school programs prepared students for successful post-school outcomes through providing paid work opportunities outside the schools. Regarding secondary schools only, senior secondary teachers agreed more than junior secondary teachers that their current school programs prepared students for successful post-school outcomes through providing vocational instruction. Similarly, teachers expressed diverse views on specific transition strategies that help students with visual impairments to transition successfully to post-school outcomes by school type.

The findings of this study also showed that there were several significant differences among participants by school region (Tables 41, 44, & 45). Kgatleng region teachers showed more agreement than South East region teachers that their current school programs prepared students with visual impairments for successful post-school outcomes through training students in self-determination skills, use of assistive technology, orientation and mobility skills, and

social skills. Kgatleng region teachers disagreed more than South East region teachers that their school programs prepared students for successful post-school outcomes through providing unpaid work experiences outside the schools or paid work opportunities within the schools. However, South East region teachers disagreed more than Kgatleng region teachers that their school programs prepared students for successful post-school outcomes through providing paid work opportunities outside the schools.

Relevant to secondary schools, Kgatleng region teachers agreed more than South East region teachers that their current school programs prepared students for successful post-school outcomes through providing vocational instruction. It is evident from the findings of this study that teachers from the Kgatleng and South East regions all believed that some support was provided to students with visual impairments, especially in the areas of self-determination, social skills, assistive technology, orientation and mobility, academic skills, and vocational skills. However, Kgatleng region teachers believed that their students received more support than South East region students in most of these transition areas. Concerning vocational schools only, South East region teachers agreed more than Kgatleng region teachers that their current school programs prepared students for successful post-school outcomes through training students in employment skills. This result is not surprising, because the primary goal of vocational schools is to prepare students for employment. Also, South East region teachers may be supporting students to gain employment skills better than their Kgatleng region counterparts, as there may be ample opportunities to train students in such skills because the capital city of Botswana, Gaborone, is located in the center of the South East region.

Finally, in general, the findings of this study suggest that teachers had diverse beliefs about specific transition planning strategies for students with visual impairments and that

different school types and regions had varying perceptions of supporting the transition needs of these youths. The “Do Not Know” findings of this study pointed out that numerous participants lacked knowledge and understanding of specific transition practices and principles for students with disabilities, including those with visual impairments. In an era where Botswana is moving toward effectively implementing the Inclusive Education Policy in schools, it may be critical to consider improving in-service programs and professional development activities to equip teachers with the skills necessary to meet this goal.

Beliefs About Coursework for Students with Visual Impairments

This section focused on core and optional courses that schools provided to students in order to assist them to pass JCE, BGCSE, and vocational examinations to allow them to transition successfully to post-school environments. Both academic and functional curricula were considered, as these are critical for enhancing post-school outcomes of students with disabilities. It is, however, important to note that the academic school curriculum for secondary schools in Botswana is the same for all students, irrespective of having a disability or not. Students are allowed to make choices regarding optional courses only.

Data from the current study indicated that junior secondary school participants leaned toward agreement that math, science, English language, Setswana language, social studies, agriculture, and optional subjects well prepared students with visual impairments for participation in senior secondary education. However, senior secondary school participants in this study had negative beliefs concerning how well math, science, English language, Setswana language, and optional subjects prepared students with visual impairments for participation in postsecondary education. This is a concerning finding that may explain the underrepresentation of minority groups in postsecondary education, one of which is individuals with disabilities

(Leake & Stodden, 2014), despite research suggesting that youths with visual impairments have the highest probability of youths in disability categories to be successful academically. In Botswana, although Setswana language is considered one of the official languages, it is not the language of instruction in secondary and postsecondary education, and certainly not an entry requirement for the majority of school programs offered by colleges and universities, which therefore results in teachers undermining this subject. Concerning teachers' beliefs about math and science, this is to be expected because literature has indicated that students with disabilities have a higher likelihood of having a lower academic achievement level and to have less preparedness for postsecondary education, specifically in math and science (Stodden et al., 2001).

Several significant differences between participants were found on beliefs about coursework related to post-school outcomes for students with visual impairments. Specific to junior secondary schools (Table 48), general education teachers and guidance and counseling teachers tended to agree more than special education teachers that math well prepared students with visual impairments for participation in senior secondary education. Also, guidance and counseling teachers tended to agree more than general education and special education teachers that social studies prepared students well for participation in senior secondary education. Regarding senior secondary schools (Table 52), general education teachers disagreed more than guidance and counseling teachers that math well prepared students with visual impairments for participation in postsecondary education. General education teachers disagreed more than special education teachers and guidance and counseling teachers that science, English language, and Setswana language well prepared students with visual impairments for participation in postsecondary education. However, special education teachers agreed more than guidance and

counseling teachers that English language prepared students with visual impairments for participation in postsecondary education. Furthermore, general education and special education teachers disagreed more than guidance and counseling teachers that optional subjects well prepared students with visual impairments for participation in postsecondary education. In general, while general education, special education, and guidance and counseling teachers agreed that coursework offered in secondary schools enabled students with visual impairments to proceed to senior secondary education, the coursework did not do the same for these students regarding enrolment to postsecondary education.

The findings of this study also revealed that junior secondary teachers from the Kgatleng region tended to agree more than South East region teachers that math, science, English language, Setswana language, social studies, agriculture, and optional subjects well prepared students with visual impairments for participation in senior secondary education (Table 49). Also, senior secondary teachers from the Kgatleng region disagreed more than South East region teachers that math, science, English language, Setswana language, and optional subjects well prepared students with visual impairments for participation in postsecondary education (Table 53).

In addition, secondary school participants in the present study leaned toward agreement that math, science, English language, and optional subjects well prepared students with visual impairments for participation in employment. However, these participants had negative beliefs about Setswana language in relation to preparing students for employment. Secondary school participants had positive beliefs that math, English language, and optional subjects well prepared students with visual impairments for participation in technical and vocational education.

However, secondary participants had negative beliefs about Setswana language and science in relation to preparing students for technical and vocational education training.

There were numerous significant differences among secondary school participants in beliefs about coursework related to successful participation in employment or technical and vocational education training for students with visual impairments (Tables 59 & 69). Guidance and counseling teachers tended to agree more than general education teachers that math and English language well prepared students with visual impairments for participation in employment. Guidance and counseling teachers also agreed more than general education and special education teachers that optional subjects prepared students well for participation in employment. Furthermore, guidance and counseling teachers tended to agree more than general education and special education teachers that math well prepared students with visual impairments for participation in technical and vocational education. General education teachers and special education teachers disagreed more than guidance and counseling teachers that Setswana language well prepared students with visual impairments for participation in technical and vocational education.

The findings of this study also showed that there were some significant differences among participants in secondary schools (Tables 60 & 70). For example, junior secondary teachers tended to agree more than senior secondary teachers that math, science, English language, and optional subjects well prepared students with visual impairments for participation in employment. Senior secondary teachers disagreed more than junior secondary teachers that Setswana language well prepared students with visual impairments for participation in employment. Moreover, junior secondary teachers tended to agree more than senior secondary teachers that math, English language, and optional subjects well prepared students with visual

impairments for participation in technical and vocational education. However, senior secondary teachers disagreed more than junior secondary teachers that science and Setswana language well prepared students with visual impairments for participation in technical and vocational education. The findings of this study also revealed that junior secondary teachers from the South East region tended to agree more than Kgatleng region teachers that math, science, and English language well prepared students with visual impairments for participation in employment (Table 61). Also, South East region teachers leaned toward agreement more than Kgatleng region teachers that math well prepared students with visual impairments for participation in technical and vocational education training (Table 71).

It is evident from the findings of this study that teachers had diverse beliefs on whether the coursework provided to students with visual impairments at secondary schools helped them to transition successfully to post-school outcomes. It is also worth noting that the primary goal of general education teachers at secondary schools in Botswana is to provide students with academic instruction, while special education teachers are responsible for making appropriate accommodations for students with disabilities. Counseling teachers are responsible for helping students to become familiar with their limitations and strengths and the choices available to guide their choice-making, as well as providing information on postsecondary education options and career choices, including the academic and occupational training requirements to be successful in the world of work. Considering the different roles of participants in schools, it is not surprising that they had varying beliefs about coursework offered in their schools. Solberg et al. (2013) contended that teachers should be equipped with knowledge and skills to make it easier to collaborate with learners when developing an individualized program of study that takes into account relevant school experiences that result in students' engagement throughout their

course of study in secondary schools. A well-developed and relevant program of study has also been found as a positive post-school predictor for successful employment of youth with disabilities (Test et al., 2009). The program of study encompasses a set of courses meant to meet the unique needs of each student, personal experiences, and curriculum for enhancing academic and functional skills so that students are able to reach their post-school goals (Rowe et al., 2013). However, it is critically important to ensure that education programs do not underscore the teaching of daily living skills at the cost of academics, since this can negatively affect the academic achievement of individuals with disabilities (Ferguson & Blumber, 2006). Perhaps the negative effect may be due to shortchanging the academic curriculum to include daily-living skills training as part of the typical school day.

Specific to vocational schools, participants in this study had positive beliefs that math, carpentry-related subjects, brick-laying subjects, English language, accounting-related subjects, computer-related subjects, management-related subjects, and other subjects well prepared students with visual impairments for participation in higher education or employment. South East region teachers agreed more than Kgatleng region teachers that math, English language, and other subjects well prepared students with visual impairments for participation in higher education (Table 75) and no significant differences were noted between school regions concerning coursework for transition to employment (Table 77). These findings showed that vocational education training coursework prepared students not only for meaningful employment, but also for higher education. It should be noted that in Botswana the primary goal of technical and vocational training institutions is to prepare students for successful transition to employment, with higher education as secondary. Vocational education allows students to be involved in occupation-focused courses that form part of a regular career and technical education

delivery (Cobb et al., 2013; Lopez-Mayan & Nicodemo, 2013). However, the findings concerning vocational school teachers especially with respect to higher education should be interpreted with caution. Analysis of participants' "Do Not Know" responses attests to this fact, with 28.4%, 26.9%, 26.9%, and 26.9% of vocational teachers from the Kgatleng region reporting that they did not know whether carpentry-related subjects, English language, brick-laying subjects, and accounting-related subjects, respectively, helped students with visual impairments to transition successfully to higher education (Table 74).

Perceptions About Transition Barriers

Participants in this study believed that they were inadequately trained to support the transition process, and that their schools did not have enough staff and financial resources to support the transition process. Participants also believed that school administrators provided little support for students' transition and that there was lack of professional development activities related to transition. Participants believed that heavy teaching loads limited the level of transition support, as well as that there was little or no collaboration with external agencies in the transition process. Moreover, participants believed that there were no clear transition guidelines in their schools and that it was difficult to align academic subjects with postsecondary goals.

Research has suggested that the preparation of students with visual impairments for successful post-school outcomes requires, as one important element, adequately trained teachers. Mukhopadhyay et al. (2012) found that some of the challenges in schools regarding the successful implementation of inclusive education practices in Botswana included inadequate special education preparation and training for teachers, shortage of resources, and large class sizes. Large class sizes may be linked to heavy teaching loads, as shown in the findings of the current study. Moreover, special education teachers have been described as having limited levels

of adequate preparation (American Association for Employment in Education [AAEE], 2005). It is especially difficult for the field of special education to recruit and retain special education personnel in rural areas (Brownell, Bishop, & Sindelar, 2005). Rural districts continue to face high rates of attrition and one of the factors linked to attrition in these areas is the shortage of resources to support students with low incidence disabilities (Ludlow, Conner, & Schechter, 2005; Schwartzbeck & Prince, 2003). Perhaps high rates of attrition negatively affect the quality and continuity of services that students with disabilities are entitled to receive.

In Botswana secondary schools, teachers mainly focus on the general education curriculum to ensure that students pass their final-year national examinations (i.e., JCE, BGCSE), allowing them to proceed to postsecondary settings. According to Bouck (2009), a possible risk associated with paying much attention to the general education curriculum may be the channeling of limited resources and investing less time in teaching vocational skills while schools work toward ensuring that students with disabilities, including those with visual impairments, pass the state achievement tests. Although national policies in Botswana support and promote enhanced accessibility to vocational education and training for individuals with disabilities, only a few have been found to have such access, mainly due to inadequate training of teachers, and inadequate funding of vocational training institutions (Casey, 1998).

Regarding collaboration between secondary schools and postsecondary institutions, Reed et al. (2003) contended that universities and colleges provided limited transition services that particularly focused on the distinct transition needs of students with visual impairments. Consequently, preparing students with visual impairments for transitioning to postsecondary education is usually left to secondary teachers (i.e., classroom teachers, teachers of students with visual impairments, resource room teachers). According to Reed et al. (2003), despite the fact

that universities and colleges were of the belief that they created awareness in high schools of their disability services, only about 17% provided transition courses for students with disabilities, and only 30% provided professional development in transition for high school teachers. Shortage of professional development for educational personnel is more likely to negatively impact their ability to offer advice to students who wish to enroll for postsecondary education.

Looking at the findings of the current study, it is not surprising that participants indicated that their schools did not have clear transition guidelines. Although national policies such as the RNPE and the Inclusive Education Policy promote the transition of students with disabilities in Botswana, these policy documents are somewhat vague and do not give clear guidelines on what needs to be done to prepare students with disabilities for adulthood and the world of work. Clear transition practices and principles in policy documents could provide a foundation upon which schools base the provision of transition services and supports. Furthermore, consistent with the findings of the present study, although interagency collaboration has been noted as a best-practice intervention and a predictor of successful postsecondary education and employment for students with disabilities, external agencies rarely work with schools (Cameto et al., 2004; Morgan et al., 2013; Morningstar & Clark, 2003).

It is of great concern that participants in this study reported that school administrators provided little support in the transition process. Teachers are required to facilitate effective transition programs and practices as well as have an understanding and the ability to elicit support at every level of the student's transition. However, for the needs of all students with disabilities to be met, it is imperative that teachers, other school staff, and administrators have a proper understanding regarding the evaluation and improvement of secondary transition programs to make sure that there are regular program improvements (Kohler, 1996). As reported

in this study, shortage of financial resources was a concern to participants. It is worth noting that shortage of funding is a serious challenge concerning the effective implementation of assistive technology (NTFTD, 2004), which is especially critical to meeting the learning needs of not only students with visual impairments, but all students with disabilities. IDEA 2004 calls for each student's postsecondary goals to be founded on age-appropriate transition assessments linked to training, education, work and independent living skills (IDEA, 2004). Hence, it is concerning to find that participants in this study reported having difficulties aligning academic subjects with postsecondary goals.

The findings from the current study revealed some significant differences among general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers (Table 81). General education teachers agreed more than special education teachers and vocational teachers that they were inadequately trained to support the transition process. While general education teachers showed more agreement than guidance and counseling teachers that their schools did not have enough staff to support the transition process, special education teachers had a higher agreement level than guidance and counseling teachers as well as vocational teachers on this item. Furthermore, general education teachers and vocational teachers agreed more than guidance and counseling teachers that school administrators provided little support for students' transition. Even though general education teachers, special education teachers, and guidance and counseling teachers agreed more than vocational teachers that it was difficult to align academic subjects with postsecondary goals, general education teachers had a higher agreement level than their special education counterparts on this item.

Data from this study also showed several significant differences between participants by school type (Table 82). For example, senior secondary teachers agreed more than junior

secondary teachers and vocational school teachers that they were inadequately trained to support the transition process. Moreover, senior secondary teachers agreed more than junior secondary teachers and vocational school teachers that their schools did not have enough staff and financial resources to support the transition process. Although senior secondary teachers and vocational school teachers agreed more than junior secondary teachers that school administrators provided little support for students' transition as well as that there was a lack of professional development activities related to transition, senior secondary teachers had a higher agreement level than vocational school teachers on these items. Again, senior secondary teachers agreed more than junior secondary teachers and vocational school teachers that heavy teaching loads limited the level of transition support and that there was little or no collaboration with external agencies. Senior secondary teachers agreed more than junior secondary teachers and vocational school teachers that there were no clear transition guidelines in their schools. In addition, it is worth noting that despite the fact that senior secondary teachers agreed more than junior secondary teachers and vocational school teachers that it was difficult to align academic subjects with postsecondary goals, junior secondary teachers had a higher level of agreement than vocational teachers on this item.

Concerning participants' perceptions of transition barriers by school region, significant differences were also noted (Table 83). South East region teachers agreed more than Kgatleng region teachers that they were inadequately trained and that their schools did not have enough staff to support the transition process. South East region teachers also agreed more than Kgatleng region teachers that school administrators provided little support for students' transition and that there was little or no collaboration with external agencies to support the transition process.

In general, the results of the present study revealed that teachers had several concerns which they believed were affecting the transition process negatively. While all participants agreed that there were transition planning challenges in their schools, they also had varying levels of agreement by teacher position, school type, and school region. Of particular concern is that senior secondary teachers, a U. S. equivalent of high school teachers, believed that they were facing transition barriers more than junior secondary and vocational school teachers. This is concerning because although no single transition stage should be taken for granted, the transition from high school to the assumption of adult roles is an especially significant period in an individual's life. Halpern (1992) described postsecondary transition as an unstable phase that youths pass through during the initial years after leaving high school and prepare to participate in different adult roles in the community.

Conclusions

This study examined the views and beliefs of secondary and vocational school teachers concerning how students with disabilities in Botswana junior secondary schools, senior secondary schools, and vocational schools were prepared to transition successfully from school to post-school settings, especially in the areas of postsecondary education and employment. In Botswana, the junior secondary and senior secondary school education programs are meant to provide support to and prepare students, including those with disabilities, for higher education and the employment arena (MOESD, 2015) by ensuring that all students have equal access to the school curriculum. Effective transition planning is a critical aspect of the education of students with disabilities, upon which educational programs and activities should be developed in order to ensure that students reach successful postsecondary outcomes. If secondary school transition for students with disabilities is to be successful, and make it a point that students' educational goals

are clearly defined and aligned with post-school outcomes, the Botswana government needs to consider developing a secondary school transition mandate/law. While also taking into account the cultural and social contexts of Botswana, the transition law needs to align with transition practices and principles in developed nations such as the United States.

Although inclusive education policy has been the central focus of education in Botswana (Brandon, 2006; Chhabra et al., 2010; Mangope, 2002), several challenges are evident regarding the implementation process. One of the key goals of the Inclusive Education Policy is for all students to complete basic education and advance where possible to senior secondary education and/or higher education or to vocational training; and also aims for teachers to be equipped with the skills and resources that enable students with varying abilities to learn effectively (Government of Botswana, 2011). Formulating a transition policy for students with disabilities would be a step further in strengthening the government's efforts to ensure collaborative work among the government, NGOs, and the private sector to develop and maintain a policy framework that addresses the needs of all students as outlined in the Inclusive Education Policy.

A critical step toward ensuring that a transition policy for students with disabilities is developed and implemented effectively in Botswana is to train and equip teachers with the necessary skills and knowledge to support students to attain improved post-school outcomes. Comprehensive knowledge and understanding of transition practices and principles will allow school personnel to plan, prepare, and support students with disabilities to move successfully to postsecondary education and/or employment. Thus, educators need to do more to help students with disabilities have improved post-school outcomes. As indicated previously, school personnel must work collaboratively with other stakeholders to develop educational programs that are consistent with each student's transition goals. Evidence has suggested that most educational

programs of students with disabilities do not fully match their transition goals. However, if teachers have a comprehensive understanding and knowledge of the transition process, they will be able to set specific and realistic transition goals that are consistent with current career and employment demands. Secondary school education in Botswana is geared toward assisting all students to move successfully to higher education, vocational training, and the world of work (MOESD, 2015). The national education policies are intended to produce well-rounded and responsible citizens who are able to contribute positively to the economy of Botswana. Specific to the education of students with visual impairments, it is important for educational programs to focus on well-grounded practices that consider utilizing concrete, not abstract, teaching approaches, emphasizing how objects/things relate to the environment (Scholl, 1986). Also, students with visual impairments have to be trained in such domains as social skills, self-determination skills, use of assistive technology, orientation and mobility skills, and vocational/employment skills if they are to have successful post-school outcomes.

Although education policies and secondary school programs have good intentions for students with disabilities, the findings of this study suggest that there was a disconnect between teachers' knowledge and understanding of the goals of these programs and views and beliefs concerning how effectively students with disabilities were prepared to enjoy successful postsecondary education and/or employment in Botswana. The disconnect is due to the fact that secondary school programs tend to focus more on teaching academics, at the expense of functional and employment/vocational skills. This is a concern because a holistic approach to the education and transition of students with disabilities should maintain a balance among the teaching of academic, functional, and vocational skills. Although there is more focus on the academic curriculum in schools, subjects such as science, math, and English language are of

concern to teachers regarding whether they help these students to transition successfully to post-school environments. Science, math, and English language are critical in the teaching of problem-solving skills, critical and logical thinking, computational skills, reasoning skills, reading, writing, and communication skills, all of which are necessary for daily living. Hence, it is not surprising that these subjects are included among the core subjects available in junior secondary and senior secondary schools.

The findings of this study also revealed a disconnect between the views, beliefs, and knowledge of teachers about transition planning and what is currently happening in schools to support the transition of students with disabilities. While participants indicated that they had positive perceptions and some knowledge level regarding transition practices and principles, numerous areas of the transition process were not implemented effectively. For example, even though participants reported that school staff, students, parents, and external agencies were involved in the transition process, there was limited collaboration between schools and external agencies, as well as inadequate support from school administrators. Moreover, despite indicating the importance of functional subjects in the transition process, there was much focus on academic subjects. It seems that teaching instructions focused more on ensuring that students pass JCE, BGCSE, and vocational examinations, thereby compromising instruction in functional and vocational skills. Schools also provided few paid or unpaid work experiences for students with visual impairments, especially outside the schools. It is worth noting that the Division of Special Education in Botswana coordinates programs for students with disabilities in schools as an extension of the general education curriculum (Dart, 2007). This is problematic for the transition process, because Kohler (1996) argued that transition planning should be seen as a

significant educational step worthy of providing direction to the formulation of all education programs instead of viewing transition planning as a supplemental activity.

The findings of the current study showed that teachers had concerns regarding whether some instructional courses were preparing students with visual impairment to transition successfully to technical and vocational training, postsecondary education, and/or employment. In addition to pushing an agenda toward the development of a transition mandate by relevant stakeholders in Botswana, is the need to review all instructional coursework provided in secondary and vocational schools with an effort to ensure linkage with post-school outcomes for students with disabilities and demands of the current economy. It is also important that efforts be made to provide professional development courses and training for general education teachers, special education teachers, guidance and counseling teachers, vocational teachers, and the entire school staff to reduce their transition knowledge disparity. If teachers are on the same page regarding knowledge and understanding of the transition process, they can collaborate effectively to support the transition needs of learners, thus resulting in students' improved post-school outcomes.

It is also important for colleges and universities in Botswana to consider reviewing pre-service teacher programs to include rigorous and comprehensive training courses in transition. Recently in Botswana, studies have focused mainly on inclusive education, with no particular attention to postsecondary transition (e.g., Brandon, 2006; Chhabra et al., 2010; Mangope, 2002; Mukhopadhyay et al., 2012). However, this study is the first of its kind concerning a comprehensive analysis of transition practices and principles for students with disabilities in Botswana, targeting junior secondary schools, senior secondary schools, and vocational schools, with a specific emphasis on students with visual impairments. While several challenges were

noted concerning effective implementation of transition supports and services for students with disabilities, these are not unavoidable if all are committed to the welfare and success of individuals with disabilities across the lifespan.

Since the findings of the current study suggest that teachers from the Kgatleng region were more knowledgeable about transition planning for students with disabilities and provided better supports to these students than their counterparts from the South East region, it is imperative that there be collaboration between school regions to reduce the gap in transition knowledge level and make it a point that students are well supported across school regions, especially in an era in which inclusive education is highly emphasized. As mentioned, the development of a legal framework regarding postsecondary transition is critical in Botswana. Efforts in this process should involve concerted action of the government, education professionals, political leaders, parents, advocates, and NGOs for people with disabilities, as well as other relevant stakeholders. Because the establishment of a transition policy may take time, in the interim the Special Education Division in Botswana needs to spearhead efforts in conducting research concerning transition needs of students with disabilities, paying particular attention to the various disability categories that are found in schools (e.g., learning disabilities, intellectual disabilities, hearing impairments).

If postsecondary transition for students with disabilities is to be successful, it is also imperative that the government ministries responsible for secondary schools and vocational schools (i.e., Ministry of Basic Education, Ministry of Employment, Labor Productivity, and Skills Development, Ministry of Tertiary Education, Research, Science, and Technology) work together so that teachers and students are exposed to minimal transition challenges to be able to have positive post-school outcomes. Before the last third of the year 2016, the MOESD was

responsible for the education of secondary and vocational school students. Even then, it was still a challenge for secondary and vocational schools to work together in a smooth and collaborative manner. Now that different government ministries are responsible for secondary schools and vocational schools, it can be safely assumed that collaboration will be even more challenging. One of the issues that has been noted from literature as contributing to the negative school experiences and poor learning and post-school outcomes for students with disabilities in Botswana is poor collaboration and coordination within and between the Ministry of Education structures (e.g., Dart, 2007; Dart et al., 2002; Kisanji, 2003).

In general, a major finding of this study was that even though participants had some level of knowledge and understanding of transition practices and principles, such knowledge and understanding were not sufficient to help students with disabilities, especially those with visual impairments, to assume post-school roles successfully. In addition, the support structures and strategies in schools were found to be mostly inclined to the teaching of academic skills and with less emphasis on vocational and employment skills. Although some degree of transition support is taking place in secondary and vocational schools for students with disabilities, there is room for improvement.

Limitations

This study examined teachers' views and beliefs concerning transition practices and principles in Botswana as well as how students with disabilities, especially those with visual impairments, were being supported to reach positive post-school outcomes. General education teachers, special education teachers, guidance and counseling teachers, and vocational teachers were surveyed at the junior secondary school level, senior secondary school level, and vocational school level. One limitation is that although the statistical power in this study was high due to a

large sample size, there were unequal sizes of the participants' groupings. Some participant groups had relatively small numbers in comparison to the overall number in other groups, making it difficult to generalize the findings to the population of students in other areas of Botswana. Secondly, the researcher used both purposeful and census sampling to choose participants for this research study. Although this study was regarded as exploratory, a random sample of schools from the 10 school regions may be more representative of the population of students with disabilities in future research.

Another limitation may be the bias of the researcher. It was impossible to administer the survey to teachers online because of poor Internet accessibility in Botswana, especially in rural areas. Hence, the researcher had to visit schools to administer paper and pencil surveys. As a faculty member at the University of Botswana, the researcher has taught some of the teachers who are now working in several schools that were visited. Moreover, the researcher has worked with many teachers in the Kgatleng and South East school regions during teaching practicum supervision. Thus, the researcher's familiarity and presence during survey administration may have impacted participants' responses in some form. Consequently, this limitation could probably impact data interpretation negatively, thereby reducing the validity of the study.

A fourth limitation is that this study used only quantitative methods to analyze data. A mixed-methods approach that includes analysis of qualitative data may be essential for providing credible explanations for variations in quantitative data. Klingner and Boardman (2011) explained that including both quantitative and qualitative data points in a study helps to provide breadth and depth to the findings, which leads to a better understanding and substantiation of results. Thus, through mixed-methods approaches, quantitative findings can be explained and clarified.

It is also critical to note that three senior secondary schools in the South East region chose not to participate. These senior secondary schools are in close proximity with the University of Botswana, and as such, they indicated that they were overwhelmed with many research projects that were already being conducted in their schools by university students and faculty. This is concerning because their lack of participation may limit the level of generalizability of the results to other senior secondary schools. Furthermore, the sample consisted of only general education teachers, special education teachers, guidance and counseling teachers, and vocational teachers through self-reporting in the survey instrument. It is possible that not all teachers honestly reported what kind of teacher they were. In a period of political correctness in Botswana (Delanty, 2012), it is likely that teachers reported what they thought was politically correct rather than stated their actual perceptions. Thus, the respondents may have felt uncomfortable about how the information they provided would be used and feared that their supervisors and administrators would discover their views and that they were not adequately equipped to do their respective jobs. This is the challenge with self-reported data, although the researcher informed the participants that the study would be confidential and that no individual responses would be reported.

Implications for Practice

There is a need for a legal framework on transition for students with disabilities in Botswana. A transition policy is a critical step that will provide a foundation on which all relevant stakeholders will rely and base decisions relating to supporting the transition needs of students with disabilities so that they enjoy successful post-school outcomes. For this idea to be a reality, the Botswana government must play a leading role while partnering with other important stakeholders, such as the private sector, NGOs for individuals with disabilities, political leaders,

customary/traditional leaders, religious leaders, and parents, to make it a point that special attention is given to individuals with disabilities to participate fully in adult roles within their communities. Effective transition planning and programming for students with disabilities to participate successfully in postsecondary education and/or employment takes the commitment of educators in schools, while also collaborating with students' parents, and other agencies outside the school.

Given the current status in Botswana, where fighting the HIV/AIDS pandemic has been a central focus of the government for several years, diverting more financial resources into special education transition may be a challenging task. A change of attitude toward people with disabilities by all citizens of Botswana is a significant step that would embrace the needs and challenges faced by individuals with disabilities in everyday life. For example, the National Disability Coordinating Office should take full advantage of its mandate to educate all citizens on disability issues rather than paying most of its attention focusing only on individuals with disabilities. Full inclusion of people with disabilities involves educating communities about disability, acceptance and acknowledgment of challenges encountered by people with disabilities, and finding ways of minimizing or eliminating the impact of these challenges on people's lives. Moreover, parliamentarians at the National Assembly need to take advantage of their political positions to present motions before parliament that are guided and supported by research findings to improve transition outcomes for individuals with disabilities, rather than spending much time focusing on personal interests and engaging in physical fights.

It is important that secondary transition for students with disabilities be seen as a priority and be extended to all government ministries. Although the MOESD has played an important role in the education of students with disabilities in the past, now that the responsibilities of this

ministry have been divided and assigned to three new ministries (i.e., Ministry of Basic Education, Ministry of Employment, Labor Productivity, and Skills Development, and Ministry of Tertiary Education, Research, Science, and Technology), the functions of these ministries should be redefined to indicate how they plan to collaborate with each other regarding the education and transition of students with disabilities. Despite the fact that economic and budgetary constraints may prolong or hinder efforts to improve transition programs for students with disabilities through formulating a transition policy, just as it has been the case with the development of other policies in the past such as the Inclusive Education Policy, commitment from all stakeholders will produce light at the end of the tunnel.

The Inclusive Education Policy's key goal is to ensure that all students have access to education and receive the necessary supports and accommodations in local schools. While striving to fully implement the goals of this policy, a transition mandate would be one way of addressing issues of full participation for all in the community. Meanwhile, schools can focus more attention on maintaining a balance between the teaching of academic skills and functional/vocational skills. Moreover, it is important that at the school level, not only should public schools review their curriculum to provide more hands-on opportunities and practical experiences for students, but also provide professional development opportunities to school staff through seminars and workshops. As the world continues to become more complex because of new innovations in science and technology, it is also critical that schools find better ways of accommodating students with disabilities, including those with visual impairments, to encourage them to develop interest and excel in math- and science-related courses and careers.

The findings of this study suggest that teachers in secondary schools in Botswana have some knowledge of transition practices and principles, although the support level for students

with visual impairments was negatively impacted by several challenges. One of the assumptions made by the researcher was that teachers may be supporting students with disabilities to transition to post-school environment in an uncoordinated fashion. The findings therefore are supportive of this basic assumption. This may possibly explain why there is a disconnect between what teachers believe they know and understand about the transition process and the effective implementation of transition practices and principles. Hence, the time is now that joint efforts be made and the government and other relevant stakeholders be pushed to enact a transition policy. Transition is a concept that is ever changing and educators need to be prepared to handle new challenges in the pursuit to support the needs of students with disabilities. This further attests to why teachers need regular refreshing through professional development activities even if they believe that they have comprehensive knowledge and understanding of the transition process.

Recommendations

The following recommendations are made based on the findings of this study. The recommendations need to be considered in light of improving transition supports and post-school outcomes for students with disabilities.

1. Firstly, there is a need for the government to consider secondary transition as a national priority. This means that transition should form part of the education policy to address the transition needs of all learners with disabilities and that the enactment of this policy should take place with immediate effect. IDEA (2004) calls for the preparation of students with disabilities to begin life following the exit from high school. It is therefore imperative to provide support to this population to ensure that they are ready to assume adult roles (i.e., postsecondary education, employment, and independent living) after graduating from secondary school. To achieve this

goal, the school personnel and external agencies should work collaboratively, with clearly defined roles and responsibilities for each participant.

2. The role of teachers is crucial to the implementation of effective transition programs. This means that teacher training and preparation programs at the University of Botswana and colleges of education need to include courses that focus on the transition planning process for students with disabilities. These courses should consider a holistic approach to transition by taking into account areas such as effective transition models and evidence-based transition practices.

Currently, the University of Botswana special education program offers only one transition course, which fails to adequately equip teachers with knowledge and skills to fully address the transition needs of students with disabilities. Transition courses in the institutions of higher education should not only be designed for special education teacher trainees. Instead, they should be open to general education teacher trainees and guidance and counseling teacher trainees as well, because their roles in the transition planning process are critical. For teachers who have already graduated and currently work in several schools, it is critical that they are provided with professional development activities geared toward enhancing their knowledge of transition. Professional development activities should involve collaborative work with international experts in transition and focus on required curricular materials and resources, and train school staff to provide better services to students with disabilities in the transition process. Examples of professional development activities include seminars, workshops, and conferences.

3. In schools, all students with visual impairments should have well-written education plans that share common themes with students' IEPs in the United States. These plans need to clearly outline the educational goals of each student as well as how the school intends to meet these goals. The school staff, students, and students' parents should work together to discuss a

student's educational progress and needs, as well as strengths, interests, and preferences. The educational goals of each student should be clearly outlined and they should match his or her transition goals. In a collaborative effort, the team needs to consider the core and elective courses that help the student to achieve desired post-school goals. Similar to IDEA 2004 requirements, schools would have to identify the student's postsecondary goals concerning employment, education or training, and independent living skills after making age-appropriate assessments. Such goals need to be measurable and can be reviewed each school year so that appropriate adjustments are made.

4. Another important step that needs to be taken in schools is not only to focus on the academic achievement of students with visual impairments, but also to consider their functional performance. To help prepare students for post-school environments, there is a need to teach them self-determination skills, social skills, and orientation and mobility skills as part of their expanded core curriculum. Although research has demonstrated the importance of these skills to successful post-school outcomes, much time and effort is dedicated to the teaching of academic skills rather than these skills. Hence, teachers who work with students with visual impairments are to be encouraged to increase their efforts and allocate more time for teaching these skills. It is imperative that the Ministry of Basic Education sponsor some special education teachers for students with visual impairments to be trained and certified as orientation and mobility instructors, since currently there is a shortage of these specialists.

5. Families of students with visual impairments should be allowed to participate more in the transition process of their children. Although parents are currently allowed to inquire about the educational progress of their children, they are rarely invited to such meetings. Consistent with IDEA (2004), parents should be invited to participate in matters that relate to students' transition

planning, and their consent should be sought concerning initial assessment and inclusion in an education plan designed to address the unique educational needs of each student. Teachers need to empower parents to assume significant roles in the transition planning process through school-based workshops and seminars, and during Parent-Teacher Association (PTA) meetings.

Capacity-building interventions should aim at enhancing ways of informing and involving families, such as the government and private-sector efforts to increase the resources for parent training institutions.

6. Moreover, there is a need for schools to work more in collaboration with agencies outside the school in the transition planning process to assist students with visual impairments in achieving their post-school goals. Schools should develop connections with outside agencies, students, and their families. Career counselors need to be involved with students with visual impairments while they are still at secondary school. These counselors should be actively involved from the beginning of the transition planning process and this calls for interagency agreements between schools and career counseling agencies.

7. It is also important to ensure that all public schools that admit students with disabilities are well equipped with the necessary materials, resources, and assistive technology. The Ministry of Basic Education, Ministry of Employment, Labor Productivity, and Skills Development, and the Ministry of Tertiary Education, Research, Science, and Technology should work collaboratively and engage in a shared responsibility in increasing funding for learning resources that includes assistive technology in schools. As Botswana moves toward a more inclusive education system, not only must students with visual impairments be encouraged to attend specific schools, but should be allowed to attend schools in their respective neighborhoods and receive services within those educational institutions. Given the high costs of assistive technology devices, such devices

need to be subsidized so that they are more affordable to all students. At the moment, students with visual impairments do not enjoy a variety of technological devices related to their needs. Students are assigned technologies based on what devices are available at the time without paying much attention to the abilities, interests, preferences, and needs of students. Thus, students need not be assigned technological devices without making assistive technology assessments to ensure that the technology is best suited to their educational needs. Training of more assistive technology specialists through government sponsorships would be of benefit to this process.

8. Youths with visual impairments who are ready and qualified for employment should be given equal access to employment opportunities similar to Title 47, subchapter I of the ADA.

Individuals with visual impairments should not be discriminated against in employment areas (e.g., recruitment, job training, progression or promotion, discharge of duties) based on their disability. Qualified persons with visual impairments should be required to accomplish essential functions of a specific job with or without being provided with any accommodations. This calls for all employers to provide clear guidelines on what constitutes the essential functions of a job. The purpose of providing reasonable accommodations to employees with visual impairments should be to enable them to perform presently or in the immediate future the essential functions of a job. Reasonable accommodations should help individuals with visual impairments to accomplish job functions that are regarded as essential, instead of acting as a protective factor for those individuals who cannot perform the job. Essential functions of a job need not be decided from a job description. Thus, it should be reviewed on a case-by-case basis. The Government of Botswana should encourage employers to provide reasonable accommodations to qualified employees with visual impairments by giving employers particular incentives, such as tax cuts.

The National Disability Coordinating Office also should have increased funding, which will enable it to gather necessary resources to provide reasonable accommodations to individuals with disabilities, including those with visual impairments, after making appropriate assessments.

These changes in a workplace should allow an employee to perform his or her work responsibilities without causing undue hardship to the employer.

References

- Abosi, O. C. (2000). Trends and issues in special education in Botswana. *The Journal of Special Education, 34*(1), 48-53. Retrieved from <http://search.proquest.com/docview/194701949?accountid=8483>
- Agran, M., Cain, H. M., & Cavin, M. D. (2002). Enhancing the involvement of rehabilitation counselors in the transition process. *Career Development for Exceptional Individuals, 25*, 141-155. doi:10.1177/088572880202500204
- Algozzine, B., Browder, D., Karvonen, M., Test, D. W., & Wood, W. M. (2001). Effects of interventions to promote self-determination for individuals with disabilities. *Review of Educational Research, 71*(2), 219-277. doi:10.3102/00346543071002219
- Aliza, A. (2013). The issues in implementing transition program for special needs students. *Asian Social Science, 9*(16), 9-14. doi:10.5539/ass.v9n16p9
- Aliza, A. (2014). Transition program: The challenges faced by special needs students in gaining work experience. *International Education Studies, 7*(13), 192-196. doi:10.5539/ies.v7n13p192
- Allison, C., & Sanspree, M. J. (2006). Persons with visual impairments. In R. Gargiulo (Ed.), *Special education in contemporary society* (2nd ed., pp. 480-519). Belmont, CA: Thomson Learning Corporation.
- American Association for Employment in Education. (2005). *Educator supply and demand in the United States, 2004*. Columbus, OH: Author.
- American Foundation for the Blind. (2006). *Blindness statistics*. Retrieved November 2, 2016, from <http://www.afb.org/Section.asp?SectionID=15>

Americans with Disabilities Act. (2008). *U.S. Department of Labor*. Retrieved July 23, 2016, from <http://www.dol.gov/dol/topic/disability/ada.htm>

Arkkelin, D. (2014). *Using SPSS to understand research and data analysis: Psychology curricular materials*. Valparaiso, IN; Valparaiso University. Retrieved September 5, 2016, from http://scholar.valpo.edu/cgi/viewcontent.cgi?article=1000&context=psych_oer

Arndt, S. A., Konrad, M., & Test, D. W. (2006). Effects of the self-directed IEP on student participation in planning meetings. *Remedial and Special Education*, 27(4), 194-207. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=18&sid=795bd874-efde-4558-b166-ea8afabe16d3%40sessionmgr4004&hid=4209>

Arnett, J. J. (2002). *Readings on adolescence and emerging adulthood*. Upper Saddle River, NJ: Prentice Hall.

Arnett, J. M. (2001). *Adolescence and emerging adulthood: A cultural approach*. Upper Saddle River, NJ: Prentice Hall.

Ayres, K., & Cihak, D. (2010). Computer- and video-based instruction of food-preparation skills: Acquisition, generalization, and maintenance. *Intellectual and Developmental Disabilities*, 48, 195-208. doi:10.1352/1944-7558-48.3.195

Baer, R. M., Daviso, A. W., Flexer, R. W., Queen, R. M., & Meindl, R. S. (2011). Students with intellectual disabilities: Predictors of transition outcomes. *Career Development for Exceptional Individuals*, 34(3), 132-141. doi: 10.1177/0885728811399090

Baer, R. M., Flexer, R. W., Beck, S., Amstutz, N., Hoffman, L., Brothers, J., . . . Zechman, C. (2003). A collaborative follow-up study on transition service utilization and post-school

outcomes. *Career Development for Exceptional Individuals*, 26(1), 7-25.

doi:10.1177/088572880302600102

Benitez, D. T., Lattimore, J., & Wehmeyer, M. L. (2005). Promoting the involvement of students with emotional and behavioral disorders in career and vocational planning and decision-making: The self-determined career development model. *Behavioral Disorders*, 30(4), 431-447. Retrieved from

<http://search.proquest.com/docview/219678359?accountid=8483>

Benitez, D., Morningstar, M. E., & Frey, B. (2009). A multistate survey of special education teachers' perceptions of their transition competencies. *Career Development for Exceptional Individuals*, 32, 6-16. doi:10.1177/0885728808323945

Benz, M. R., Lindstrom, L. E., & Halpem, A. S. (1995). Mobilizing local communities to improve transition services. *Career Development for Exceptional Individuals*, 18, 21-32.

Benz, M. R., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives.

Exceptional Children, 66(4), 509-529. Retrieved from

<http://go.galegroup.com/ps/i.do?id=GALE%7CA63856596&sid=summon&v=2.1&u=mu nc80314&it=r&p=HRCA&sw=w&asid=f60d2369336a444f7807b38022771e2e>

Benz, M. R., Yovanoff, P., & Doren, B. (1997). School-to-work components that predict postschool success for students with and without disabilities. *Exceptional Children*, 63(2), 151-165. Retrieved from

<http://go.galegroup.com/ps/i.do?id=GALE%7CA19006238&sid=summon&v=2.1&u=mu nc80314&it=r&p=HRCA&sw=w&asid=99a43bac5712cddd3e8e4c1a757caf8d>

- Berkowitz, S. (2009). Transitioning adolescence to adult care: Putting theory into practice. *Minnesota Medicine*, 92(3), 42-44.
- Bishop, V. (2004). *Teaching visually impaired children* (3rd ed.). Springfield, Ill: C.C. Thomas.
- Black, R. S., & Langone, J. (1997). Social awareness and transition to employment for adolescents with mental retardation. *Remedial and Special Education*, 18(5), 214-222.
Retrieved from <http://search.proquest.com/docview/236255028?accountid=8483>
- Blalock, G., Kochhar-Bryant, C., Test, D., Kohler, P., White, W., Lehmann, J., . . . Patton, J. (2003). The need for comprehensive personnel preparation in transition and career development: A position statement of the Division on Career Development and Transition. *Career Development for Exceptional Individuals*, 26(2), 207-226.
doi:10.1177/088572880302600207
- Blustein, D. L., Phillips, S. D., Jobin-Davis, K., Finkelberg, S. L., & Roarke, A. E. (1997). A theory-building investigation of the school-to-work transition. *The Counseling Psychologist*, 25, 364-402. doi: 10.1177/0011000097253002
- Boone, R. (1992). Involving culturally diverse parents in transition planning. *Career Development for Exceptional Individuals*, 15(2), 205-221.
doi:10.1177/088572889201500205
- Botsford, K. D. (2013). Social skills for youths with visual impairments: A meta-analysis. *Journal of Visual Impairment & Blindness*, 107(6), 497-508. Retrieved from <http://search.proquest.com/docview/1467036766?accountid=8483>
- Botswana Institute for Development and Policy Analysis. (2003). *Knowledge, attitudes and practice of teachers and students on HIV and AIDS: Baseline study report*. Gaborone, Botswana: Author.

- Botswana Meters. (2016). *Botswana population*. Retrieved August 13, 2016, from <http://countrymeters.info/en/Botswana>
- Botswana Tourism Organization. (2013). *Welcome to Botswana*. Retrieved August 10, 2016, from <http://www.botswanatourism.co.bw/welcome-botswana>
- Bouck, E. C. (2009). No Child Left Behind, the Individuals with Disabilities Education Act and functional curricula: A conflict of interest? *Education and Training in Developmental Disabilities, 44*, 3-13. Retrieved from http://daddcec.org/Portals/0/CEC/Autism_Disabilities/Research/Publications/Education_
- Bowman, L. (2011). Americans with Disabilities Act as amended: Principles and practice. *New Directions for Adult and Continuing Education, 132*, 85-95. doi:10.1002/ace.434.
- Brandon, D. P. (2006). Botswana's family and consumer sciences teachers' attitude towards the inclusion of students with physical disabilities. *Journal of Family and Consumer Sciences Education, 24*(1), 37-49. Retrieved from <http://www.natefacs.org/Pages/v24no1/v24no1Brandon.pdf>
- Bremer, C. D., Kachgal, M., & Schoeller, K. (2003). Self-determination: Supporting successful transition. *Research to Practice Brief, 2*(1), 1-6. Retrieved from <http://www.ncset.org/publications/viewdesc.asp?id=962>
- Bremer, C. D., & Smith, J. (2004). Teaching social skills. *Addressing Trends and Developments in Secondary Education and Transition Brief, 3*(5), 1-6. Retrieved from <http://www.ncset.org/publications/viewdesc.asp?id=1749>
- Brolin, D. E. (1989). *Life centered career education: A competency based approach*. Reston, VA: The Council for Exceptional Children.

- Brolin, D. E. (1993). *LCCE professional development activity book*. Reston, VA: The Council for Exceptional Children.
- Brolin, D. E. (1995). *Career education: A functional life skills approach* (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Brolin, D. E., & Schatzman, B. (1989). Lifelong career development. In D. E. Berkell, & J. M. Brown (Eds.), *Transitions from school to work for persons with disabilities* (pp. 22-23). New York: Longman.
- Brooke, V. A., Revell, G., & Wehman, P. (2009). Quality indicators for competitive employment outcomes: What special education teachers need to know in transition planning. *Teaching Exceptional Children*, 41(4), 58-66. Retrieved from <http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=9&sid=50681441-f43e-4559-a8cf-ae8a0c66c6c1%40sessionmgr106&hid=125>
- Browder, D. M. (2001). *Curriculum and assessment for students with moderate and severe disabilities*. New York, NY: Guilford Press.
- Brown v. Board of Education, 347 U.S. 483 (1954).
- Brownell, M. T., Bishop, A. M., & Sindelar, P. T. (2005). NCLB and the demand for highly qualified teachers: Challenges and solutions for rural schools. *Rural Special Education Quarterly*, 24(1), 9-15. Retrieved from <http://search.proquest.com/docview/227209856?accountid=8483>
- Burgstahler, S. (2006). *Equal access: Universal design of computer labs*. Seattle: University of Washington, DO-IT. Retrieved November 1, 2016, from <http://www.washington.edu/doit/equal-access-universal-design-computer-labs>

- Burgstahler, S., Corrigan, B., & McCarter, J. (2005). Steps toward making distance learning accessible to students and instructors with disabilities. *Information Technology and Disabilities, 11*(1). Retrieved November 2, 2016, from <http://people.rit.edu/easi/itd/itdvll.htm>
- Butcher, S., & Wilton, R. (2008). Stuck in transition? Exploring the spaces of employment training for youth with intellectual disability. *Geoforum, 38*, 1079-1092.
- Cameto, R., Levine, P., & Wagner, M. (2004). *Transition planning for students with disabilities. A special topic report of findings from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved May 25, 2016, from http://www.nlts2.org/reports/2004_11/nlts2_report_2004_11_complete.pdf.
- Cameto, R., & Nagle, K. (2007). *Facts from NLTS2: Orientation and mobility skills of secondary school students with visual impairments. (NCSE 2008-3007)*. SRI International. Retrieved June 2, 2016 from <http://ies.ed.gov/ncser/pdf/20083007.pdf>
- Cannella-Malone, H. I., Wheaton, J. E., Wu, P., Tullis, C. A., & Park, J. H. (2012). Comparing the effects of video prompting with and without error correction on skill acquisition for students with intellectual disability. *Education and Training in Autism and Developmental Disabilities, 47*, 332-344. Retrieved from http://daddcec.org/Portals/0/CEC/Autism_Disabilities/Research/Publications/Education_Training_Development_Disabilities/2011v47_journals/ETADD_47_3_332.pdf
- Capizzi, A. M. (2008). From assessment to annual goal: Engaging a decision-making process in writing measurable IEPs. *Teaching Exceptional Children, 41*(1), 18-25. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=99c01fc7-f9e2-4023-86e4-5f089142b7e8%40sessionmgr4007&hid=4201>

- Carnevale, A. P., & Desrochers, D. M. (2003). *Standards for what? The economic roots of K-16 reform*. Princeton, NJ: Educational Testing Service.
- Carter, E. W., Lane, K. L., Pierson, M. R., & Glaeser, B. (2006). Self-determination skills and opportunities of transition-age youth with emotional disturbance and learning disabilities. *Exceptional Children*, 72(3), 333-346. Retrieved from http://supporteddecisionmaking.org/sites/default/files/self-determination_skills_opportunities_transition.pdf
- Casey, E. (1998). *A study on access to vocational education and training for students with severe disabilities in Botswana*. Gaborone, Botswana: Government Printers.
- Castellano, C. (2004). *Future reflections: A brief look at the education of blind children*. Retrieved October 21, 2016, from <https://nfb.org/images/nfb/publications/fr/fr13/fr04ss07.htm>
- Chan, F., Cardoso, E., & Chronister, J. A. (2009). *Understanding psychosocial adjustment to chronic illness and disability: A handbook for evidence-based practitioners in rehabilitation*. New York, NY: Springer.
- Charema, J., & Johnson, E. T. (2010). Transition counseling for youth with disabilities. In M. J. Field, & A. M. Jette (Eds.), *Future of disability in America* (pp. 52-74). Washington DC: The National Academies Press.
- Charlton, J., I. (1998). *Nothing about us without us*. Berkeley, LA: University of California Press.
- Chhabra, s., Srivastava, S., & Srivastava, I. (2010). Inclusive education in Botswana: The perceptions of school teachers. *Journal of Disability Policy Studies*, 20(4), 219-228. doi:10.1177/1044207309344690

- Cimera, R. E. (2010). Can community-based high school transition programs improve the cost-efficiency of supported employment? *Career Development for Exceptional Individuals*, 33(1), 4-12. doi:10.1177/0885728809346959
- Clark, G. M. (1996). Transition planning assessment for secondary-level students with learning disabilities. *Journal of Learning Disabilities*, 29, 79-92.
doi:10.1177/002221949602900110
- Clark, G. M. (2007). *Assessment for transition planning* (2nd ed.). Austin, TX: PRO-ED, Inc.
- Cmar, J. L. (2015). Orientation and mobility skills and outcome expectations as predictors of employment for young adults with visual impairments. *Journal of Visual Impairment & Blindness*, 109(2), 95-106. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1114561.pdf>
- Cobb, R. B., Lipscomb, S., Wolgemuth, J., Schulte, T., Veliquette, A., Alwell, M., . . . Weinberg, A. (2013). *Improving post-high school outcomes for transition-age students with disabilities: An evidence review* (NCEE 2013-4011). Washington, DC: National Center for Education Evaluation and Regional Assistance. Retrieved from <http://files.eric.ed.gov/fulltext/E D544172.pdf>
- Cohen, L., Manion, L., & Morrison, K. (2004). *Research methods in education* (5th ed.). London: Routledge Falmer.
- Connors, E., Curtis, E., Emerson, R. W., & Dormitorio, B. (2014). Longitudinal analysis of factors associated with successful outcomes for transition-age youth with visual impairments. *Journal of Visual Impairment & Blindness*, 108(2), 95-106. Retrieved from <http://search.proquest.com/docview/1515253871?accountid=8483>
- Cook, B. (2002). Special educators' views of community-based job training and inclusion as indicators of job competencies for students with mild and moderate disabilities. *Career*

Development for Exceptional Individuals, 25(1), 7-24.

doi:10.1177/088572880202500102

Corey, G. (2013). *Theory and practice of counseling and psychotherapy* (9th ed.). Belmont, California: Brooks/Cole.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Merrill.

Creswell, J. W. (2015). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.

Crindle, J. (1998). A chance to work. *Intervention in School & Clinic*, 33, 148-157.

Dart, G. (2006). My eyes went wide open: An evaluation of the special needs education awareness course at Molepolole College of Education, Botswana. *British Journal of Special Education*, 33(3), 130-138. doi:10.1111/j.1467-8578.2006.00428.x

Dart, G. (2007). Provision for learners with special educational needs in Botswana: A situational analysis. *International Journal of Special Education*, 22(2), 56-66. Retrieved from <http://files.eric.ed.gov/fulltext/EJ814489.pdf>

Dart, G., Didimalang, C., & Pilime, S. (2002) *An evaluation of units at Botswana primary schools for children with mental handicap*. Gaborone, Botswana: Educational Research Association.

deFur, S. (2012). Parents as collaborators: Building partnerships with school and community-based providers. *TEACHING Exceptional Children*, 44, 58-67. Retrieved from <http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=5fd6df3a-9112-4801-aca1-7c70ef14d409%40sessionmgr104&hid=107>

- Delanty, G. (2012). *Routledge handbook of cosmopolitanism studies*. London: Routledge, Taylor and Francis Group.
- deLeeuw, E. D., Hox, J. J., & Dillman, D. A. (2008). *International handbook of survey methodology*. New York, NY: Lawrence Erlbaum Associates.
- Dell, A., Newton, D. A., & Petroff, J. G. (2012). *Assistive technology in the classroom: Enhancing the school experiences of students with disabilities*. Upper Saddle River, N.J.: Pearson Merrill Prentice Hall.
- Dillman, D., Smyth, J., & Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: A tailored design method* (3rd ed.). Hoboken, NJ: John Wiley & Sons.
- Dimigen, G., Roy, A. W. N., Horn, J., & Swan, M. (2001). Integration of visually impaired students into mainstream education: Two case studies. *Journal of Visual Impairment & Blindness*, 95(3), 161-164. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=14&sid=81981fcd-5eae-4c22-a85d-5cdf2abc0207%40sessionmgr4010&hid=4201>
- Dogbe, D. (2015). *Preparing students with disabilities to transition from secondary school to postschool settings in Ghana: Perceptions of teachers and administrators* (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses. (Accession No. 3745640)
- Doren, B., Gau, J. M., & Lindstrom, L. E. (2012). The relationship between parent expectations and postschool outcomes of adolescents with disabilities. *Exceptional Children*, 79(1), 7-23. Retrieved from <http://go.galegroup.com/ps/i.do?id=GALE%7CA301555728&sid=summon&v=2.1&u=munc80314&it=r&p=HRCA&sw=w&asid=6a79ee535969b285643abbe9f97668f9>

- Durrheim, K. (1999). Quantitative analysis. In M. Terre Blanche, & K. Durrheim (Eds.). *Research in practice: Applied methods for the social sciences* (pp. 96-122). Cape Town: UCT Press.
- Edgar, E., & Polloway, E. A. (1994). Education for adolescents with disabilities: Curriculum and placement issues. *The Journal of Special Education*, 27, 438-452. Retrieved from http://webapp1.dlib.indiana.edu/virtual_disk_library/index.cgi/4273355/FID1736/journals/enc2330/2330.htm
- Egbert, J., & Salsbury, T. (2009). Out of complacency and into action: An exploration of professional development experiences in school/home literacy engagement. *Teaching Education*, 20, 375-393.
- Eide, A. H., & Loeb, M. E. (2005). *Data and statistics on disability in developing countries*. Retrieved August 17, 2016, from https://assets.publishing.service.gov.uk/media/57a08c75ed915d622c00136f/thematic_statistics.pdf
- Epstein, J. L. (2004). Meeting NCLB requirements for family involvement. *Middle Ground*, 8, 14-17. Retrieved from <http://files.eric.ed.gov/fulltext/ED496913.pdf>
- Erickson, W., Lee, C., & Von Schrader, S. (2012). *2011 disability status report: United States*. Ithaca, NY: Cornell University Employment and Disability Institute.
- Erin, J. (2003, December). *Educating students with visual impairments* (ERIC EC Digest E653). Council for Exceptional Children, Center on Disabilities and Gifted Education. Retrieved October 21, 2016, from <http://ericec.org/digest/e653.html>
- Fabian, E., Lent, R., & Willis, S. (1998). Predicting work transition outcomes for students with disabilities: Implications for counselors. *Journal of Counseling and Development*, 76(3),

- 311-316. Retrieved from
<http://search.proquest.com/docview/219012911?accountid=8483>
- Fan, X. T., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review*, 13(1), 1-22.
 doi:10.1023/A:1009048817385
- Farkas, J., Cohen, L., Howe, J., & Pierce, T. (2011). *Person-centered planning: Pathways to your future*. Tucson, AZ: Sonoran UCEDD. Retrieved September 2, 2016, from
http://pcp.sonoranucedd.fcm.arizona.edu/sites/pcp.sonoranucedd.fcm.arizona.edu/files/P_CPToolkit_Final.pdf
- Feldmen, E., & Messerli, C. (1995, March). Successful transition: The students' perspective. *Proceedings of the conference of the American Council on Rural Special Education, Las Vegas* (Eric Document Service ED 381 313).
- Ferguson, P., & Blumber, R. (2006). *Transition services for youth with disabilities*. Tempe: National Institute for Urban School Improvement, Arizona State University. Retrieved from
http://www.niusileadscape.org/docs/FINAL_PRODUCTS/LearningCarousel/Transition_Services_for_Youth_with_Disabilities.pdf
- Fichten, C. S., Asuncion, J. V., Barile, M., Ferraro, V., & Wolforth, J. (2009). Accessibility of e-learning and computer and information technologies for students with visual impairments in postsecondary education. *Journal of Visual Impairment & Blindness*, 103(9), 543-557.
 Retrieved from <http://search.proquest.com/docview/222057441?accountid=8483>
- Field, A. (2012). *Discovering statistics using SPSS* (4th ed.). Los Angeles, CA: Sage.

- Field, S., & Hoffman, A. (2002). Preparing youth to exercise self-determination: Quality indicators of school environments that promote the acquisition of knowledge, skills, and beliefs related to self-determination. *Journal of Disability Policy Studies, 13*, 113-118. Retrieved from <http://search.proquest.com/docview/211198439?accountid=8483>
- Field, S., & Kohler, P. D. (2003). Transition-focused education: Foundation for the future. *The Journal of Special Education, 37*(3), 174-183. doi:10.1177/00224669030370030701
- Fishman, C. E., & Nickerson, A. B. (2014). Motivations for involvement: A preliminary investigation of parents of students with disabilities. *Journal of Child and Family Studies*. Advance online publication. doi:10.1007/s10826-013-9865-4
- Flexer, R. W. (2001). History and legislation. In R. W. Flexer, R. M., Baer, P. Luft, & J. Simmons (Eds.), *Transition planning for secondary students with disabilities* (pp. 2-37). Upper Saddle River, NJ: Merrill Prentice Hall.
- Flexer, R. W., Simmons, J., Luft, P., & Baer, R. M. (2008). *Transition planning for secondary students with disabilities* (3rd ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Fowler, F. J. (2009). *Survey research methods* (4th ed.). Thousand Oaks, CA: Sage.
- Fowler, F. J. (2014). *Survey research methods* (5th ed.). Thousand Oaks, CA: Sage.
- Frank, A., & Sitlington, P. (2000). Young adults with mental retardation: Does transition make a difference? *Education and Training in Mental Retardation and Developmental Disabilities, 35*(2), 119-134. Retrieved from <http://www.jstor.org/stable/23879937>
- Fussell, E., & Furstenberg, F. F. (2005). The transition to adulthood during the twentieth century: Race, nativity, and gender. In R. A. Settersten, F. F. Furstenberg, & R. G. Rumbaut (Eds.), *On the frontier of adulthood: Theory, research, and public policy*. Chicago: University of Chicago Press.

- Garcia-Iriarte, E., Balcazar, F., & Taylor-Ritzer, T. (2007). Analysis of case managers' support of youth with disabilities transitioning from school to work. *Journal of Vocational Rehabilitation, 26*, 129-140. Retrieved from http://www.marriott.com/Multimedia/PDF/Marriott%20Foundation/VocRehab_Article_Dec_2006.pdf
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice*. New York, NY: Teachers College Press.
- Geenen, S., Powers, L. E., & Lopez-Vasquez, A. (2005). Barriers against and strategies for promoting the involvement of culturally diverse parents in school-based transition planning. *The Journal for Vocational Special Needs Education, 27*(3), 4-14. Retrieved from <http://files.eric.ed.gov/fulltext/EJ854361.pdf>
- Giesen, J. M., & Cavanaugh, B. S. (2012). Transition-age youths with visual impairments in vocational rehabilitation: A new look at competitive outcomes and services. *Journal of Visual Impairment & Blindness, 106*(8), 475-487. Retrieved from <http://search.proquest.com/docview/1034974456?accountid=8483>
- Gillis, L. L. (2006). Effective transition services for students with disabilities: Examining the roles of building principals and school counselors. *Journal of School Counseling, 4*(25), 1-17. Retrieved from <http://files.eric.ed.gov/fulltext/EJ901161.pdf>
- Gilson, C. L., Dymond, S. K., Chadsey, J. G., & Hsu, S. (2007). Gaining access to textbooks for postsecondary students with visual impairments. *Journal of Postsecondary Education and Disability, 20*(1), 28-39.

- Golub, D. (2003). Exploration of factors that contribute to a successful work experience for adults who are visually impaired. *Journal of Visual Impairment & Blindness*, 97, 774-778.
- Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist*, 59, 93-104. doi:10.1037/0003-066X.59.2.93
- Gothberg, J. E., Peterson, L. Y., Peak, M., & Sedaghat, J. M. (2015). Successful transition of students with disabilities to 21st century college and careers: Using triangulation and gap analysis to address nonacademic skills. *Teaching Exceptional Children*, 47(6), 344-331. doi:10.1177/0010059915587890
- Government of Botswana. (1994). *Revised national policy on education*. Gaborone, Botswana: Government Printers.
- Government of Botswana. (1996). *National policy on care for people with disabilities*. Gaborone, Botswana: Government Printers.
- Government of Botswana. (2011). *Ministry of Education and Skills Development*. Retrieved August 7, 2016, from <http://www.gov.bw/en/ministries--authorities/ministries/ministry-of-education-moe/>
- Government of Botswana. (2013). *National policy on disability*. Gaborone, Botswana: Government Printers.
- Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children*, 67(3), 331-344. Retrieved from

<http://go.galegroup.com/ps/i.do?p=HRCA&sw=w&u=munc80314&v=2.1&it=r&id=GALE%7CA72606276&sid=summon&asid=2413bb9719f78c574df47d032f7c2926>

Griffin, C., Hammis, D., & Geary, T. (2007). *The job developer's handbook: Practical tactics for customized employment*. Baltimore, MD: Paul Brookes.

Hager, R. M., & Smith, D. (2003). *The public school's special education system as an assistive technology funding source: The cutting edge*. Buffalo, NY: Neighborhood Legal Services.

Hair, E. C., Jager, J., & Garrett, S. B. (2002, July). *Helping teens develop healthy social skills and relationships: What research shows about navigating adolescence*. Retrieved November 1, 2016, from

<https://pdfs.semanticscholar.org/b595/420499b265d4bd07544c970a9a17740ad43d.pdf>

Hallahan, D., Kauffman, J., & Pullen, P. (2009). *Exceptional learners: An introduction to special education* (11th ed.). Boston: Pearson Education.

Halpern, A. S. (1985). Transition: A look at the foundations. *Exceptional Children*, 51(6), 479-486. doi:10.1177/001440298505100604

Halpern, A. S. (1990). A methodological review of follow-up and follow-along studies tracking school leavers from special education. *Career Development of Exceptional Individuals*, 13(1), 13-27. doi:10.1177/088572889001300102

Halpern, A. S. (1992). Transition: Old wine in new bottles. *Exceptional Children*, 58(3), 202-211. Retrieved from

https://web.auburn.edu/institute/multimedia/al_transition/08_Publications/02_Conf_Proceedings/proceedings1/14_HALPERN.pdf

- Halpern, A. S. (1994). The transition of youth with disabilities to adult life: A position statement of the Division on Career Development and Transition, Council for Exceptional Children. *Career Development for Exceptional Individuals*, 17, 115-124. doi: 10.1177/088572889401700201.
- Halpern, A.S., Herr, C.M., & Doren, B. (2000). *Next S.T.E.P.S.* Austin, TX: Pro-ed Inc.
- Halpern, A. S., Yovanoff, P., Doren, B., & Benz, M. R. (1995). Predicting participation in postsecondary education for school leavers with disabilities. *Exceptional Children*, 62(2), 151-164. Retrieved from <http://go.galegroup.com/ps/i.do?id=GALE%7CA17411780&sid=summon&v=2.1&u=muncc80314&it=r&p=HRCA&sw=w&asid=b7f5084b401a2f6b037b766edb44d952>
- Harvey, M. W. (2002). Comparison and postsecondary transitional outcomes between students with and without disabilities by secondary vocational education participation: Findings from the National Education Longitudinal Study. *Career Development for Exceptional Individuals*, 25(2), 99-122. doi:10.1177/088572880202500202
- Hasazi, S. B., Furney, K. S., & DeStefano, L. (1999). Implementing the IDEA transition mandates. *Exceptional Children*, 65(4), 555-566. Retrieved from <http://go.galegroup.com/ps/i.do?id=GALE%7CA55124409&sid=summon&v=2.1&u=muncc80314&it=r&p=HRCA&sw=w&asid=a0a27e7fb55348c2d366df80143604c9>
- Hasazi, S., Gordon, L., & Roe, C. (1985). Factors associated with the employment status of handicapped youth exiting high school from 1979 to 1983. *Exceptional Children*, 51(6), 455-469. doi:10.1177/001440298505100601

- Hazekamp, J., & Huebner, K. M. (1989). *Program planning and evaluation for blind and visually impaired students: National guidelines for educational excellence*. New York: American Foundation for the Blind.
- Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: Southwest Educational Development Laboratory.
- Hill, E. W. (1986). Orientation and mobility. In G. T. Scholl (Eds.). *Foundations of education for blind and visually handicapped children and youth: Theory and practice* (pp. 315-340). New York, NY: AFB Press.
- Hilsum, J. (2003). *First draft of report of consultancy activities in Result Area 3 of EDF 9: Quality access and equity in education improved*. Gaborone, Botswana: British Council.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences* (5th ed.). Boston, MA: Houghton Mifflin Co.
- Hoffman, A., & Field, S. (2005). *Steps to self-determination*. Austin, TX: Pro-ed Inc.
- Holmes, J., & Fillary, R. (2000). Handling small talk at work: Challenges for workers with intellectual disabilities. *International Journal of Disability, Development and Education*, 47(3), 273-291.
- Hoover-Dempsey, K. V., Battaito, A. C., Walker, J. M. T., Reed, R. P., DeJong, J. M., & Jones, K. P. (2001). Parental involvement in homework. *Educational Psychologist*, 36(3), 195-209. doi:10.1207/S15326985EP3603_5
- Howell, D. C. (2007). *Statistical methods for psychology*. Belmont, CA: Cengage Wadsworth.

- Huebner, K. M., Merk-Adam, B., Stryker, D., & Wolffe, K. (2004). *The national agenda for the education of children and youths with visual impairments, including those with multiple disabilities* (rev. ed.). New York: AFB Press.
- Huebner, K.M., & Wiener, W. (2005). Guest editorial. *Journal of Visual Impairment & Blindness*, 99, 579-584.
- Hughes, C., & Carter, E. W. (2011). Transition supports: Equipping youth for adult life. *Journal of Vocational Rehabilitation*, 35, 177-180. doi:10.3233/JVR-2011-0567
- Huizingh, E. (2008) *Applied statistics with SPSS*. Thousand Oaks, CA: Sage Publications Ltd.
- Individuals with Disabilities Education Act of 2004, 20 U.S.C. §1400 *et seep* (2004).
- International Monetary Fund. (2014). *Botswana 2014 article IV consultation; Staff report and press release*. Retrieved August 17, 2016, from <https://www.imf.org/external/pubs/ft/scr/2014/cr14204.pdf>
- Isaacs, K. (2007). *ICT in education in Botswana*. Retrieved August 21, 2016, from https://www.infodev.org/infodev-files/resource/InfodevDocuments_387.pdf
- Itkonen, T. (2007). PL 94-142: Policy, evolution, and landscape shift. *Issues in Teacher Education*, 16, 7-17. Retrieved from [http:// connection.ebscohost.com/articles](http://connection.ebscohost.com/articles)
- Izzo, M. V., Cartledge, G., Miller, L., Growick, B., & Rutkowski, S. (2000). Increasing employment earnings: Extended transition services that make a difference. *Career Development for Exceptional Individuals*, 23(2), 139-156.
doi:10.1177/088572880002300203
- Jamieson, M., Paterson, J., Krupa, T., McEachen, E., & Topping, A. (1993). *Thresholds: Enhancing the career development strategies of young people with physical disabilities*. Ottawa, ON: Canadian Guidance and Counseling Foundation.

- Jay, E. D. (1991). A broader look at outcomes: Engagement in productive activities after secondary school. In M. Wagner, L. Newman, R. D'Amico, E. D. Jay, P. Butler-Nalin, C. Marder, & R. Cox, *Youth with disabilities: How are they doing? The first comprehensive report of the National Longitudinal Transition Study*. Menlo Park, CA: SRI International.
- Jeynes, W. H. (2003). A meta-analysis: The effects of parental involvement on minority children's academic achievement. *Education and Urban Society*, 35(2), 202-218.
doi:10.1177/0013124502239392
- Johnson, D. R., & Sharpe, M. N. (2000). Results of a national survey on the implementation of transition service requirements of IDEA. *Journal of Special Education Leadership*, 13, 15-26.
- Johnson, D. R., Stodden, R. A., Emanuel, E. A., Luecking, R., & Mack, M. (2002). Current challenges facing the future of secondary education and transition services: What the research tell us. *Exceptional Children*, 68, 519-531. Retrieved from
<http://go.galegroup.com/ps/i.do?p=HRCA&sw=w&u=munc80314&v=2.1&it=r&id=GALE%7CA89075945&sid=summon&asid=29386adea60eb1f795f6087d139e0b26>
- Johnson, J., & Rusch, F. R. (1993). Secondary special education and transition services: Identification and recommendation for future research and demonstration. *Career Development for Exceptional Individuals*, 16(1), 1-18.
doi:10.1177/088572889301600101
- Joint United Nations Program on HIV/AIDS. (2014). *The gap report*. Retrieved November, 11, 2016, from
http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf

- Kaminsky, J. W., Valle, L. A., Filene, J. H., & Boyle, C. L. (2008). A meta-analytic review of components associated with parent training program effectiveness. *Journal of Abnormal Child and Adolescent Psychology*, 36(4), 567-589. doi:10.1007/s10802-007-9201-9
- Karpur, A., Clark, H. B., Caproni, P., & Sterner, H. (2005). Transition to adult roles for students with emotional/behavioral disturbances: A follow-up study of student exiters from Steps-to-Success. *Career Development for Exceptional Individuals*, 28(1), 36-46. doi: 10.1177/08857288050280010601
- Kelly, S. M., & Wolffe, K. E. (2012). Internet use by transition-aged youths with visual impairments in the United States: Assessing the impact of postsecondary predictors. *Journal of Visual Impairment & Blindness*, 106(10), 597-608. Retrieved from <http://search.proquest.com/docview/1124510098?accountid=8483>
- Kemp, C. E., Hourcade, J. J., & Parette, H. P. (2000). Building an initial information base: Assistive technology funding resources for school-aged students with disabilities. *Journal of Special Education Technology*, 15(4), 1 5-24. Retrieved from <http://search.proquest.com/docview/228474583?accountid=8483>
- Kim, N. H., & Park, J. (2012). The effects of the family-involved SDLMI on academic engagement and goal attainment of middle school students with disabilities who exhibit problem behavior. *International Journal of Special Education*, 37(1), 117-127. Retrieved from <http://files.eric.ed.gov/fulltext/EJ979719.pdf>
- Kirk, S., Gallagher, J., Anastasiow, N., & Coleman, M. (2006). *Educating exceptional children* (11th ed.). Boston: NY: Houghton Mifflin Com.

- Kisanji, J. (2003) *Situational analysis for the adaptation and modification of the basic and senior secondary curriculum for hearing impaired learners*. Gaborone, Botswana: Ministry of Education.
- Klingner, J. K., & Boardman, A. G. (2011). Addressing the “research gap” in special education through mixed methods. *Learning Disability Quarterly*, 34(3), 208-218.
doi:10.1177/0731948711417559
- Knott, L., & Asselin, S. B. (1999). Transition competencies: Perception of secondary education teachers. *Teacher Education and Special Education*, 22, 55-65.
doi:10.1177/088840649902200106
- Kochhar-Bryant, C. A., & Greene, G. (2009). *Pathways to successful transition for youth with disabilities: A developmental process* (2nd ed.). Upper Saddle River, NJ: Pearson.
- Kohler, P. D. (1993). Best practices in transition: Substantiated or implied? *Career Development for Exceptional Individuals*, 16, 107-121. doi: 10.1177/088572889301600201
- Kohler, P. D. (1996). *Taxonomy for transition programming*. Champaign: University of Illinois.
Retrieved June 10, 2016 from <http://homepages.wmich.edu/~kohlerp/pdf/Taxonomy.pdf>
- Kohler, P. D., DeStefano, L., Wermuth, T., Grayson, T., & McGinty, S. (1994). An analysis of exemplary transition programs: How and why are they selected? *Career Development for Exceptional Individuals*, 17, 187-202.
- Kohler, P. D., & Field, S. (2003). Transition-focused education: Foundation for the future. *Journal of Special Education*, 37, 174-183. doi: 10.1177/00224669030370030701
- Kohler, P. D., Gothberg, J. E., Fowler, C., & Coyle, J. (2016). *Taxonomy for transition programming 2.0: A model for planning, organizing, and evaluating transition education*,

- services, and programs*. Western Michigan University. Retrieved June 10, from http://www.transitionta.org/sites/default/files/Tax_Trans_Prog_0.pdf
- Kohler, P. D., & Hood, L. (2000). *Improving student outcomes: Promising practices and programs for 1999-2000*. Champaign: University of Illinois at Urbana-Champaign, Transition Research Institute.
- Kohler, P. D., & Rusch, F. R. (1996). Secondary education programs and transition perspectives. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), *Handbook of special and remedial education: Research and practice* (2nd ed., pp. 107-130). Tarrytown, NY: Elsevier Science.
- Konczacki, Z. A., Parpart, J. L., & Shaw, T. M. (2016). *Studies in the economic history of southern Africa: Volume 1: The front line states*. New York, NY: Routledge.
- Kortering, L., Sitlington, P., & Braziel, P. (2004). The use of vocational assessment and planning as a strategic intervention to help keep youths with emotional or behavioral disorders in school. In *Transition of Students with Emotional or Behavior Disorders: Current approaches for positive outcomes*. (Ed. Doug Cheney). Arlington, VA: Council for Children with Behavior Disorders and Division on Career Development and Transition.
- Lai, Y., & Ishiyama, F.I. (2004). Involvement of immigrant Chinese Canadian mothers of children with disabilities. *Exceptional Children*, 71(1), 97-108. Retrieved from <http://go.galegroup.com/ps/i.do?id=GALE%7CA124134288&sid=summon&v=2.1&u=muncc80314&it=r&p=HRCA&sw=w&asid=b6bbc104623c9490d05efe4f2d889daf>
- Leake, D. W., & Stodden, R. A. (2014). Higher education and disability: Past and future of underrepresented populations. *Journal of Postsecondary Education and Disability*, 27(4), 399-408. Retrieved from

https://www.ahead.org/uploads/publications/JPED/JPED%2027_4/JPED27_4_FULL%20DOCUMENT_UPDATED.PDF

- Lefever, S., Dal, M., & Matthiasdottir, A. (2007). Online data collection in academic research: Advantages and limitations. *British Journal of Educational Technology*, 38(4), 574-582. doi:10.1111/j.1467-8535.2006.00638.x
- Levine, P., & Nourse, S. (1998). What follow-up studies say about postschool life for young men and women with learning disabilities: A critical look at the literature. *Journal of Learning Disabilities*, 31(3), 212-223. Retrieved from <http://search.proquest.com/docview/194225176?accountid=8483>
- Lewis, I. M., Watson, B. C., & White, K. M. (2009). Internet versus paper-and-pencil survey methods in psychological experiments: Equivalence testing of participant responses to health-related messages. *Australian Journal of Psychology*, 61, 107-116. doi:10.1080/00049530802105865
- Li, J., Bassett, S. D., & Hutchinson, S. R. (2009). Secondary special educators' transition involvement. *Journal of Intellectual & Developmental Disability*, 34, 163-172. doi:10.1080/13668250902849113
- Lichtenstein, S., & Michaelides, N. (1993). Transition from school to young adulthood: Four case studies of young adults labeled mentally retarded. *Career Development for Exceptional Individuals*, 16(2), 183-195. doi:10.1177/088572889301600207
- Lindstrom, L., Doren, B., & Miesch, J. (2011). Waging a living: Career development and long-term employment outcomes for young adults with disabilities. *Exceptional Children*, 77(4), 423-434. Retrieved from

<http://go.galegroup.com/ps/i.do?id=GALE%7CA260582214&sid=summon&v=2.1&u=muncl80314&it=r&p=HRC&sw=w&asid=54f222bcd0bb1e5e75c5308ea4c2376c>

Lohmeier, K. (2007). Integrating expanded core sessions into the K-12 program: A high school scheduling approach. *RE:view*, 39(1), 31-40. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=11&sid=81981fcd-5eae-4c22-a85d-5cdf2abc0207%40sessionmgr4010&hid=4201>

Lubbeets, J. H., Repetto, J. B., & McGorray, S. P. (2008). Perceptions of transition barriers, practices, and solutions in Florida. *Remedial and Special Education*, 29(5), 280-292. doi:10.1177/0741932507313016

Ludlow, B. L., Conner, D., & Schechter, J. (2005). Low incidence disabilities and personnel preparation for rural areas: Current status and future trends. *Rural Special Education Quarterly*, 24(3), 15-24. Retrieved from <http://www.ode.state.or.us/wma/teachlearn/conferencematerials/sped/2014/lowincidence disabilities.pdf>

Luecking, R. G., & Mooney, M. (2002). Tapping employment opportunities for youth with disabilities by engaging effectively with employers. *Research to Practice Brief 1*(3), 1-6. Retrieved from <http://files.eric.ed.gov/fulltext/ED475508.pdf>

Malian, I., & Nevin, A. A. (2002). Review of self-determination literature: Implications for practitioners. *Remedial and Special Education*, 23(2), 68-74. Retrieved from <http://search.proquest.com/docview/236259031?accountid=8483>

Mandell, D. (2000). How will they ever learn? Educating blind students in today's public schools. *Braille Forum*, 39, 13-19.

- Mangope, B. (2002). *The attitudes of rural primary and secondary school teachers toward the inclusion of students with disabilities in their classrooms in Botswana* (Unpublished master's thesis). University of Melbourne, Australia.
- Marriott Foundation. (2008). *Bridges....from school to work*. Retrieved July 31, 2016, from <https://www.marriottfoundation.org/bridges-school-work#>
- Martin, J. E., Huber Marshall, L., & DePry, R. L. (2001). Participatory decision-making: Innovative practices that increase student self-determination. In R. W. Flexer, T. J. Simmons, P. Luft, & R. M. Baer (Eds.), *Transition planning for secondary students with disabilities* (pp. 304-332). Columbus OH: Merrill, Prentice Hall.
- Martin, J. E., Huber Marshall, L., & Sale, P. (2004). A 3-year study of middle, junior high, and high school IEP meetings. *Exceptional Children*, 70, 285-297. Retrieved from <http://go.galegroup.com/ps/i.do?p=HRCA&sw=w&u=munc80314&v=2.1&it=r&id=GALE%7CA114328007&sid=summon&asid=824f00b8a67ba57a677c9ee38d0f0033>
- Martin, J. E., Van Dycke, J. L., Christensen, W. R., Greene, B. A., Gardner, J. E., & Lovett, D. L. (2006). Increasing student participation in IEP meetings: Establishing the self-directed IEP as an evidence-based practice. *Exceptional Children*, 72, 299-316.
doi:10.1177/001440290607200303.
- Masoodi, J. (2004). *School reform in residential schools for the blind: A historical investigation*. (Unpublished doctoral dissertation): University of Washington.
- Mau, R. R., & Opengart, R. A. (2012). Comparing ratings: In-class (paper) vs. out of class (online) student evaluations. *Higher Education Studies*, 2(3), 55-68.
doi:10.5539/hes.v2n3p55

Mazzotti, V. L., Rowe, D. A., Kelley, K. R., Test, D. W., Fowler, C. H., Kohler, P. D., &

Kortering, L. J. (2009). Linking transition assessment and postsecondary goals: Key elements in the secondary transition planning process. *Teaching Exceptional Children*, 42(2), 44-51. Retrieved from

<http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=6&sid=99c01fc7-f9e2-4023-86e4-5f089142b7e8%40sessionmgr4007&hid=4201>

McDonnall, M. C. (2010a). Factors predicting post-high school employment for young adults with visual impairments. *Rehabilitation Counseling Bulletin*, 54(1), 36-45.

doi:10.1177/0034355210373806

McDonnall, M. C. (2010b). The employment and postsecondary educational status of transition-age youths with visual impairments. *Journal of Visual Impairment & Blindness*, 104(5),

298-303. Retrieved from

<http://search.proquest.com/docview/222024241?accountid=8483>

McDonnall, M. C. (2011). Predictors of employment for youths with visual impairments:

Findings from the second national longitudinal transition study. *Journal of Visual Impairment & Blindness*, 105(8), 453-466. Retrieved from

<http://search.proquest.com/docview/886545247?accountid=8483>

McDonnall, M. C., & Crudden, A. (2009). Factors affecting the successful employment of transition-age youths with visual impairments. *Journal of Visual Impairment &*

Blindness, 103(6), 329-342. Retrieved from

<http://search.proquest.com/docview/222022487?accountid=8483>

- McGuire, J. M., Scott, S. S., & Shaw, S. F. (2003). Universal design for instruction: The paradigm, its principles, and products for enhancing instructional access. *Journal of Postsecondary Education and Disability*, 17, 10-20.
- McNear, D. (2007). Meeting the unique educational needs of visually impaired pupils through appropriate placement. *Journal of Visual Impairment & Blindness*, 101(4), 237-.238.
Retrieved from <http://search.proquest.com/docview/222019523?accountid=8483>
- Mechling, L. C., Gast, D. L., & Fields, E. A. (2008). Evaluation of a portable DVD player and system of least prompts to self-prompt cooking task completion by young adults with moderate intellectual disabilities. *Journal of Special Education*, 42, 179-190.
doi:10.1177/0022466907313348
- Mechling, L. C., Gast, D. L., & Gustafson, M. R. (2009). Use of video modeling to teach extinguishing of cooking related fires to individuals with moderate intellectual disabilities. *Education and Training in Developmental Disabilities*, 44, 67-79. Retrieved from
http://daddcec.org/Portals/0/CEC/Autism_Disabilities/Research/Publications/Education_Training_Development_Disabilities/2009v44_Journals/ETDD_200903v44n1p067-079_Use_Video_Modeling_Teach_Extinguishing_Cooking_Related_Fires.pdf
- Ministry of Education and Skills Development. (2015). *Botswana education and training sector strategic plan (ETSSP 2015-2020)*. Retrieved June 11, 2016, from <http://www.gov.bw/Global/MoE/Acts/MOESD%20ETSSP-EDUCATION%20STRATEGY%20approved%20version%20II.pdf>
- Mississippi Department of Education. (2016). *Secondary transition: A collaborative planning process*. Retrieved September 1, 2016, from <http://www.mde.k12.ms.us>

- Mogalakwe, M. (2015). An assessment of Botswana's electoral management body to deliver fair elections. *Journal of Contemporary African Studies*, 33(1), 105-120.
doi:10.1080/02589001.2015.1021210
- Morgan, R. L., Callow-Heuser, C. A., Horrocks, L. L., Hoffman, A. N., & Kupferman, S. (2014). Identifying transition teacher competencies through literature review and surveys of experts and practitioners. *Career Development and Transition for Exceptional Individuals*, 37(3), 149-160. doi:10.1177/2165143413481379
- Morningstar, M. E., & Clark, G. M. (2003). The status of personnel preparation for transition education and service: What is the critical content? How can it be offered? *Career Development for Exceptional Individuals*, 26, 227-237.
doi:10.1177/088572880302600208
- Morningstar, M. E., Frey, B. B., Noonan, P. M., Ng, J., Clavenna-Deane, B., Graves, P., . . . Williams-Diehm, K. (2010). A preliminary investigation of the relationship of transition preparation and self-determination for students with disabilities in postsecondary educational settings. *Career Development for Exceptional Individuals*, 33(2), 80-94.
doi:10.1177/0885728809356568
- Morningstar, M., & Mazzotti, V. (2014). *Teacher preparation to deliver evidence-based transition planning and services to youth with disabilities* (Document No. IC-1). University of Florida. Retrieved from <http://cedar.education.ufl.edu/tools/innovation-configurations/>
- Morton, F., & Ramsay, J. (1987). *The birth of Botswana. A history of the Bechuanaland protectorate from 1910 to 1966*. Gaborone, Botswana: Longman Botswana.

- Motlapele, D. (n.d.). *Disability: Statistics Botswana*. Retrieved August 21, 2016, from https://www.cdc.gov/nchs/ppt/citygroup/meeting12/wg12_session6_3_motlapele.pdf
- Mukhopadhyay, s., Nenty, H. J., & Abosi, O. (2012). Inclusive education for learners with disabilities in Botswana primary schools. *SAGE Open*, 2(2), 1-9.
doi:10.1177/2158244012451584
- Nagle, K. M. (2001). Transition to employment and community life for youths with visual impairments: Current status and future directions. *Journal of Visual Impairment & Blindness*, 95(12), 725-738. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=8&sid=81981fcd-5eae-4c22-a85d-5cdf2abc0207%40sessionmgr4010&hid=4201>
- National Center on Secondary Education and Transition. (2003). *A national leadership summit on improving results for youth: State priorities and needs for assistance*. Retrieved November 9, 2016, from <http://www.ncset.org/summit03/index.htm>
- National Center on Secondary Education and Transition. (2004). *Topic report: A national study on graduation requirements and diploma options for youth with disabilities*. Minneapolis: University of Minnesota. Retrieved from <http://www.ncset.org/publications/related/NCSETgradreport.pdf>
- National Center on Secondary Education and Transition. (2007). *Key provisions on transition: IDEA 1997 compared to H. R. 1350 (IDEA 2004)*. Retrieved September 5, 2016, from <http://www.ncset.org/publications/related/ideatransition.asp>
- National Council on Disability. (2000). *Transition and post-school outcomes for youth with disabilities: Closing the gaps to postsecondary education and employment*. Washington, DC: Author. Retrieved from <https://www.ncd.gov/publications/2000/Nov12000>

- National Council on Disability. (2004). *Improving educational outcomes for students with disabilities*. Washington, DC: Author. Retrieved November 9, 2016, from <http://files.eric.ed.gov/fulltext/ED485691.pdf>
- National Organization on Disability. (2004). *Harris survey on employment of people with disabilities*. New York: Author.
- National Organization on Disability. (2016). *Start on success*. Retrieved August 2, 2016, from <http://www.nod.org/innovation/start-on-success.html>
- National Task Force on Technology and Disability. (2004). *Within our reach: Findings and recommendations of the National Task Force on Technology and Disability*. Flint, MI: The Disability Network.
- Newman, L. (2005). *Family involvement in the educational development of youth with disabilities. A special topic report of findings from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved May 29, 2016, from http://www.nlts2.org/reports/2005_03/nlts2_report_2005_03_complete.pdf.
- Newman, L., Wagner, M., Cameto, R., & Knokey, A. (2009). *The post-high school outcomes of youth with disabilities up to 4 years after high school: A report from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved June 9, 2016 from http://www.nlts2.org/reports/2009_04/nlts2_report_2009_04_complete.pdf
- Newman, L., Wagner, M., Knokey, A. M., Marder, C., Nagle, K., Shaver, D., . . . Swarting, M. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2)*

- (NCSER 2011-3005). Menlo Park, CA: SRI International. Retrieved November 9, 2016, from <https://ies.ed.gov/ncser/pubs/20113005/pdf/20113005.pdf>
- Noonan, P. M., Morningstar, M. E., & Erickson, A. G. (2008). Improving interagency collaboration: Effective strategies used by high-performing local districts and communities. *Career Development for Exceptional Individuals*, 31(3), 132-143. doi: 10.1177/0885728808327149
- Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education*, 33(3), 301-314. Retrieved from <http://www.informaworld.com/openurl?genre=article&id=doi:10.1080/02602930701293231>
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Oertle, K. M., & Trach, J. S. (2007). Interagency collaboration: The importance of rehabilitation professionals' involvement in transition. *Journal of Rehabilitation*, 73(3), 36-44. Retrieved from <http://search.proquest.com/docview/236297039?accountid=8483>
- Ofoegbu, N. E., & Azarmsa, R. (2010). Impact of the special education Vocational Education Program (VEP) on student career success. *International Journal of Special Education*, 25(2), 34-46. Retrieved from <http://files.eric.ed.gov/fulltext/EJ890583.pdf>
- Osgood, R. L. (2005). *The history of inclusion in the United States*. Washington, DC: Gallaudet University Press.
- Oyinlade, A., & Gellhaus, M. (2005). Perceptions of effective leadership in schools for students with visual impairments. *Journal of Visual Impairment & Blindness*, 99, 261-276. Retrieved from <http://search.proquest.com/docview/222058868?accountid=8483>

- Packard, B., Leach, M., Ruiz, Y., Nelson, C., & DiCocco, H. (2012). School-to-work transition of career and technical education graduates. *Career Development Quarterly*, 60(2), 134-144. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=81981fcd-5eae-4c22-a85d-5cdf2abc0207%40sessionmgr4010&hid=4201>
- Paesons, N. (2016). *Bechuanaland, Republic of Botswana*. Retrieved August 10, 2016, from <https://www.britannica.com/place/Botswana>
- Palys, T., & Atchison, T. (2008). *Research decisions: Quantitative and qualitative perspectives*. Toronto, Canada: Thomson Nelson.
- Parsons, N. (1998). *King Khama, Emperor Joe and the Great White Queen*. Chicago, IL: University of Chicago Press.
- Patterson, K. B., Webb, K. W., & Krudwig, K. M. (2009). Family as faculty parents: Influence on teachers' beliefs about family partnerships. *Preventing School Failure*, 54, 41-50. Retrieved from [host/pdfviewer/pdfviewer?vid=7&sid=5fd6df3a-9112-4801-aca1-7c70ef14d409%40sessionmgr104&hid=107](http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=7&sid=5fd6df3a-9112-4801-aca1-7c70ef14d409%40sessionmgr104&hid=107)
- Patton, J., & Dunn, C. (1998). *Transition from school to young adulthood: Basic concepts and recommended practices*. Austin, TX: PRO-ED.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pierangelo, R., & Giuliani, G. A. (2004). *Transition services in special education*. Boston, MA: Pearson Education.
- Pogrud, R., Darst, S., & Boland, T. (2013). Evaluation of short-term programs at a residential school for students who are blind and visually impaired. *Journal of Visual Impairment*

- and Blindness*, 107(1), 30-43. Retrieved from
<http://search.proquest.com/docview/1442480232?accountid=8483>
- Porta, M. A. (2008). *Dictionary of epidemiology* 5. Oxford, England: Oxford University Press.
- Price, L. A., Wolensky, D., & Mulligan, R. (2002). Self-determination in action in the classroom. *Remedial and Special Education*, 23(2), 109-115. Retrieved from
<http://search.proquest.com/docview/236289129?accountid=8483>
- Reed, M., & Curtis, K. (2011). High school teachers' perspectives on supporting students with visual impairments toward higher education: Access, barriers, and success. *Journal of Visual Impairment & Blindness*, 105(9), 548-559. Retrieved from
<http://search.proquest.com/docview/896617030?accountid=8483>
- Reed, M. J., Kennett, D. J., Lewis, T., & Lund-Lucas, E. (2011). The relative benefits found for students with and without learning disabilities taking a first-year university preparation course. *Active Learning in Higher Education*, 12(2), 133-142.
doi:10.1177/1469787411402483
- Reed, M. J., Kennett, D. J., Lewis, T., Lund-Lucas, E., Stallberg, C., & Newbold, I. L. (2009). The relative effects of university success, courses and individualized interventions for students with learning disabilities. *Higher Education Research & Development*, 28(4), 385-399. doi:10.1080/07294360903067013
- Reed, M. I., Lund-Lucas, E., & O'Rourke, (2003). Standards of practice in postsecondary special needs programming: Student and administrator opinion. *Canadian Journal of Higher Education*, 33(2), 27-56. Retrieved from <http://files.eric.ed.gov/fulltext/EJ678902.pdf>

Rehabilitation Act Amendments of 1992, Pub. L. No. 102-569, 29 U.S.C. § 701 *etseq.* (1992).

Rehabilitation Act Amendments of 1998, Pub. L. No. 105-220, 29 U.S.C. § 701 *etseq.* (1998).

Revised National Policy on Education. (1994). *Ministry of Education: Issue 2 of Government paper*. Gaborone: Government Printer.

Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2007). *Cross-sectional versus longitudinal survey research: Concepts, findings, and guidelines*. Retrieved November 3, 2016, from

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.333.6803&rep=rep1&type=pdf>

Rojewski, J. (2002). Career assessment for adolescents with mild disabilities: Critical concerns for transition planning. *Career Development for Exceptional Individuals*, 25, 73-95. doi: 10.1177/088572880202500106

Rosner, B. (2006). *Fundamentals of biostatistics* (6th ed.). CA: Belmont.

Rowe, D. A., Mazzotti, V. L., Hirano, K., & Alverson, C. Y. (2015). Assessing transition skills in the 21st century. *Teaching Exceptional Children*, 47(6), 301-309. doi:10.1177/0040059915587670

Rowe, D. A., Alverson, C. Y., Unruh, D., Fowler, C. H., Kellems, R., & Test, D. W. (2013). *Predictor implementation school/district self-assessment*. Retrieved June 20, 2016 from http://psocenter.org/content_page_assets/content_page_3/Predictor_SelfAssessment.final_06_24_13.pdf

Rubin, S. E., & Roessler, R. T. (2008). *Foundations of the vocational rehabilitation process* (6th ed.). Austin, TX: PRO-ED.

- Rusch, F. R., Kohler, P. D., & Hughes, C. (1992). An analysis of OSERS-sponsored secondary special education and transitional services research. *Career Development for Exceptional Individuals*, 15, 121-143. doi:10.1177/088572889201500110
- Sabbatton, E. D., & Macrine, S. L. (2007). Start on success: A model transition program for high school students with disabilities. *Preventing School Failure: Alternative Education for Children and Youth*, 52(1), 33-39. doi:10.3200/PSFL.52.1.33-40
- Sacks, S., & Wolffe, K. (2006). *Teaching social skills to students with visual impairments: From theory to practice*. New York: AFB Press.
- Sands, D. J., & Wehmeyer, M. L. (1996). *Self-determination across the life span: Independence and choice for people with disabilities*. Baltimore: Brookes.
- Sarkees-Wircenski, M., & Scott, J. L. (1995). *Vocational special needs* (3rd ed.). Homewood, IL: American Technical.
- Sawyer, M. (2015). BRIDGES: Connecting with families to facilitate and enhance involvement. *Teaching Exceptional Children*, 47(3), 172-179. doi:10.1177/0040059914558946
- Scholl, G. T. (Ed.). (1986). *Foundations of education for blind and visually handicapped children and youth: Theory and practice*. New York, NY: American Foundation for the Blind, Inc.
- Schulze, M. (2009). *A handbook on the human rights of persons with disabilities: Understanding the UN Convention on the rights of persons with disabilities*. Retrieved August 15, 2016, from http://iddcconsortium.net/sites/default/files/resources-tools/files/hi_crpd_manual_sept2009_final.pdf

- Schwartzbeck, T. D., & Prince, C. D. (2003). *How are rural school districts meeting the teacher quality requirements of No Child Left Behind?* Charleston, WV: Appalachia Educational Laboratory (AEL).
- Shapiro, J. P. (1994). *No pity: People with disabilities forging a new civil rights movement*. New York, NY: Three Rivers Press.
- Sharma, K. C. (2010). The role of local government in Botswana for effective delivery: Challenges, prospects and lessons. *Commonwealth Journal of Local Governance*, 7(6), 135-142. doi:10.5130/cjlg.v0i7.1908.
- Shaw, A., Gold, D., & Wolffe, K. (2007). Employment-related experiences of youths who are visually impaired: How are these youths faring? *Journal of Visual Impairment & Blindness*, 101(1), 7-21. Retrieved from <http://search.proquest.com/docview/222056107?accountid=8483>
- Sibley, E., & Dearing, E. (2014). Family educational involvement and child achievement in early elementary school for American-born and immigrant families. *Psychology in the Schools*, 51(8), 814-831. doi:10.1002/pits.21784
- Simon, B. S. (2001). Family involvement in high school: Predictors and effects. *NASSP Bulletin*, 85(627), 8-19. doi:10.1177/019263650108562702
- Simon, M. K. (2011). *Dissertation and scholarly research: Recipes for success* (2nd ed.). Seattle, WA: Dissertation Success, LLC.
- Sitlington, P. L., Neubert, D. A., & LeConte, P. J. (1997). Transition assessment: The position of the Division on Career Development and Transition. *Career Development for Exceptional Individuals*, 20, 69-79. doi: 10.1177/088572889702000106

- Sitlington, P. L., & Payne, E. (2004). Information needed by postsecondary education: Can we provide it as part of the transition assessment process? *Learning Disabilities: A Contemporary Journal*, 2(2), 1-14. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=8&sid=99c01fc7-f9e2-4023-86e4-5f089142b7e8%40sessionmgr4007&hid=4201>
- Solberg, V. S., Wills, J., & Osman, D. S. (2013). *Promoting quality individualized learning plans: A "how to guide" focused on the high school years*. Washington, DC: National Collaborative on Workforce and Disability for Youth, Institute for Educational Leadership.
- Souto-Manning, M., & Swick, K. J. (2006). Teachers' beliefs about parent and family involvement: Rethinking our family involvement paradigm. *Early Childhood Education Journal*, 34, 187-193. Retrieved from <http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=2420317e-6590-4ea4-8312-8e3a8897e66e%40sessionmgr103&hid=107>
- Stodden, R. A., Dowrick, P., Gilmore, S., & Galloway, L. M. (2001). *A review of secondary school factors influencing postschool outcomes for youth with disabilities*. Honolulu: National Center for the Study of Postsecondary Educational Supports, University of Hawaii at Manoa. Retrieved from <http://www.rrtc.hawaii.edu/documents/products/phase1/043-H01.pdf>
- Storms, J., O'Leary, E., & Williams, J. (2000). *Transition requirements: A guide for states, districts, schools, universities and families*. Eugene, OR: National Center on Secondary Education and Transition. Retrieved September 1, 2016, from <http://www.ncset.org/publications/related/idea97.pdf>

- Targett, P., & Inge, K. (2008). *Employment negotiations fact sheet*. Richmond, VA: VCU Region III CRP RCEP. Retrieved July 31, 2008, from <http://www.crprcep.org/resources/viewContent.cfm/493>
- Taylor, S. J. (2003). Introduction. In Cory, R., Taylor, S., Walker, P., & White, J. (Eds.), *Beyond compliance: An information package on the inclusion of people with disabilities in postsecondary education*. Syracuse, NY: National Resource Center on Supported Living and Choice, Syracuse University.
- Test, D. W., Aspel, N. P., & Everson, J. M. (2006). *Transition methods for youth with disabilities*. Upper Saddle River, NJ: Pearson Education, Inc.
- Test, D. W., Mazzotti, V. L., Mustian, A. L., Fowler, C. H., Kortering, L. J., & Kohler, P. H. (2009). Evidence-based secondary transition predictors for improving postschool outcomes for students with disabilities. *Career Development for Exceptional Individuals*, 32, 160-181. doi:10.1177/0885728809346960
- The Commonwealth. (2016). *Botswana: Constitution and politics*. Retrieved August 17, 2016, from <http://thecommonwealth.org/our-member-countries/botswana/constitution-politics>
- Timmons, J. C., Whitney-Thomas, J., McLntyre, J. P., Butterworth, J., & Allen, D. (2004). Managing service delivery systems and the role of parents during their children's transitions. *Journal of Rehabilitation*, 70(2), 19-26. Retrieved from <http://search.proquest.com/docview/236325398?accountid=8483>
- Trading Economics. (2016). *Botswana unemployment rate*. Retrieved November 12, 2016, from <http://www.tradingeconomics.com/botswana/unemployment-rate>

- Trainor, A. A. (2005). Self-determination perceptions and behaviors of diverse students with LD during the transition planning process. *Journal of Learning Disabilities*, 38(3), 233-249. doi:10.1177/00222194050380030501
- Transition Services Liaison Project. (2009). *Technical assistance guidance for transition in the IEP*. (N.p.): (n.p.).
- Turnbull, A., & Turnbull, H. R. (2001). *Families, professionals and exceptionality: Collaborating for empowerment* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- Turnbull, H. R. (1993). *Free appropriate public education: The law and children with disabilities* (4th ed.). Denver: Love.
- United Nations Educational, Scientific and Cultural Organization. (1990). *World declaration on Education for all: Meeting basic learning needs*. Paris, France: Author.
- United Nations Educational, Scientific, and Cultural Organization. (1994). *Final report: World conference on special needs education: Access and equality*. Paris, France: Author.
- United Nations Educational, Scientific and Cultural Organization. (2000). *Education for all: Meeting our collective commitments*. Paris, France: Author.
- United Nations Enable. (2007). *Overview of international legal frameworks for disability legislation*. Retrieved November 18, 2016, from <http://www.un.org/esa/socdev/enable/disovlf.htm>
- University of Botswana Department of Humanities. (2008). *Religion in Botswana: Statistics*. Retrieved August 15, 2016, from <http://www.thuto.org/ubh/bw/society/relstat1.htm>
- U. S. Department of Education. (2007). *IDEA Regulations: Secondary transition*. Retrieved July 14, 2016 from <http://idea.ed.gov/explore/view/p/,root,dynamic,TopicalBrief,17>,

- U.S. Department of Education. (2011). *Application for new grants under the Individuals with Disabilities Act (IDEA). Personnel development to improve services and results for children with disabilities* (CFDA 84.325). Washington, DC: Author.
- U.S. Department of Education. (n.d.). *The rehabilitation act*. Retrieved July 9, 2016, from <http://www2.ed.gov/policy/speced/reg/narrative.html>
- Utah State Office of Education. (2007). *A parent guide to Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA)*. Salt Lake City, UT: Author. Retrieved June 14, 2016 from <http://www.utahparentcenter.org/>
- Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities. A Report from the National Longitudinal Transition Study-2 (NLTS2)* Menlo Park, CA: SRI International. Retrieved May 22, 2016, from http://www.nlts2.org/reports/2005_04/nlts2_report_2005_04_complete.pdf.
- Wagner, M., Newman, L., Cameto, R., Javitz, H., & Valdes, K. (2012). A national picture of parent and youth participation in the IEP and transition planning meetings. *Journal of Disability Policy Studies*, 23(3), 140-155. doi:10.1177/1044207311425384
- Wagner, M., Newman, L., Cameto, R., & Levine, P. (2005). *Changes over time in the early postschool outcomes of youth with disabilities*. Menlo Park, CA: SRI International.
- Wagner, M., Newman, L., Cameto, R., Levine, P., & Garza, N. (2006). *An Overview of Findings from Wave 2 of the National Longitudinal Transition Study-2 (NLTS2). (NCSE 2006-3004)*. Menlo Park, CA: SRI International. Retrieved May 23, 2016, from http://www.nlts2.org/reports/2006_08/nlts2_report_2006_08_complete.pdf

- Walker, A. R., Kortering, L. J., & Fowler, C. H. (2007). Age-appropriate transition assessment guide. Charlotte, NC: National Secondary Transition Technical Assistance Center.
- Walker, A., Kortering, L. J., Fowler, C. H., Rowe, D. A., & Bethune, L. (2013). *Age appropriate transition assessment toolkit* (3rd ed.). Charlotte, NC: National Secondary Transition Technical Assistance Center.
- Wall-Emerson, R., & Corn, A. L. (2006). Orientation and mobility instructional content for children and youths: A Delphi Study. *Journal of Visual Impairment & Blindness*, 100(6), 331-342. Retrieved from <http://search.proquest.com/docview/222018898?accountid=8483>
- Wehman, P. (2006). *Life beyond the classroom: Transition strategies for young people with disabilities*. Baltimore, MD: Paul Brookes Publishing Company.
- Wehman, P., Inge, K., Revell, G., & Brooke, V. (2007). *Real work for real pay: Inclusive employment for people with disabilities* (Eds.). Baltimore, MD: Paul Brookes.
- Wehman, P., Kregel, J., & Barcus, J. M. (1985). From school to work: A vocational transition model for handicapped students. *Exceptional Children*, 52(1), 25-37.
doi:10.1177/001440298505200103
- Wehman, P., Revell, G., & Brooke, V. (2003). Competitive employment: Is it the first choice yet? *Journal of Disability Policy Studies*, 14, 163-173. doi: 10.1177/10442073030140030601
- Wehmeyer, M. L. (1998). Student involvement in transition-planning and transition-program implementation. In Rusch, F., & Chadsey, J. G. (Eds.), *Beyond high school: Transition from school to work* (pp. 206-233), Belmont, CA: Wadsworth.

- Wehmeyer, M. L. (2001). Assessment in self-determination: Guiding instruction and transition planning. *Assessment for Effective Intervention*, 26(4), 41-49.
doi:10.1177/073724770102600405
- Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities*, 38(2), 131-144. Retrieved from http://www.beachcenter.org/Research%5CFullArticles%5CPDF%5CSD25_AdultOutcomesforstudents.pdf
- Wehmeyer, M. L., Palmer, S. B., Soukup, J. H., Garner, N. W., & Lawrence, M. (2007). Self determination and student transition planning knowledge and skills: Predicting involvement. *Exceptionality*, 15, 31-44. Retrieved from <http://eric.ed.gov/?id=EJ772227>.
- Whetsone, M., & Browning, P. (2002). Transition: A frame of reference. *AFCEC Online Journal*, 1-9. Retrieved from https://web.auburn.edu/institute/multimedia/al_transition/08_Publications/03_Online_Journal/02F_definition1.pdf
- Will, M. (1984, March-April). Bridges from school to working life. *Programs for the Handicapped*. Washington, DC: Clearinghouse on the Handicapped.
- Williams-Diehm, K. L., & Lynch, P. S. (2007). Student knowledge and perceptions of individual transition planning and its process. *The Journal for Vocational Special Needs Education*, 29(3), 13-21. Retrieved from <http://files.eric.ed.gov/fulltext/EJ841378.pdf>
- Wittenburg, D., Golden, T., & Fishman, M. (2002). Transition options for youth with disabilities: An overview of the programs and policies that affect the transition from school. *Journal of Vocational Rehabilitation*, 17, 195-206.

- Wolfensberger, W. (1980). The definition of normalization: Update, problems, disagreements, and misunderstandings. In R.J. Flynn & K. E. Nitsch (Eds.). *Normalization, social integration and community services* (pp. 71-115). Baltimore, MD: University Park Press.
- Wolffe, K., & Kelly, S. M. (2011). Instruction in areas of the expanded core curriculum linked to transition outcomes for students with visual impairments. *Journal of Visual Impairment & Blindness*, 105(6), 340-349. Retrieved from <http://search.proquest.com/docview/873636359?accountid=8483>
- Wolffe, K. E., Sacks, S. Z., Corn, A. L., Erin, J. N., Huebner, K. M., & Lewis, S. (2002). Teachers of students with visual impairments: What are they teaching? *Journal of Visual Impairment & Blindness*, 96(5), 293-304. Retrieved from <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=6&sid=81981fcd-5eae-4c22-a85d-5cdf2abc0207%40sessionmgr4010&hid=4201>
- Wolfe, P. S., Boone, R. S., & Blanchett, W. J. (1998). Regular and special educators' perceptions of transition competencies. *Career Development for Exceptional Individuals*, 21, 87-106. doi:10.1177/088572889802100108
- Wright, P. W., & Wright, P. D. (2007). *Wrightslaw: Special Education Law* (2nd ed.). Hartfield, VA: Harbor House Law Press, Inc.
- Yell, M. L. (2006). *The law and special education* (2nd ed.). Upper Saddle River, NJ: Pearson.
- Yell, M. L. (2011). *The law and special education* (3rd ed.). Upper Saddle River, NJ: Pearson.
- Yell, M. L., Rogers, D., & Rogers, E. L. (1998). The legal history of special education: What a long, strange trip it's been! *Remedial and Special Education*, 19(4), 219-228. doi:10.1177/074193259801900405

- Yeo, R. (2001). *Chronic poverty and disability*. Manchester: Institute of Development Policy & Program Coordination/CPRC.
- Zabala, J. S. (2000). *Setting the stage for success: Building success through effective selection and use of assistive technology systems*. Retrieved July 29, 2016, from http://www.ldonline.org/article/Setting_the_Stage_for_Success%3A__Building_Success_Through_Effective__Selection_and_Use_of__Assistive_Technology_Systems?theme=print
- Zabala, J. S. (2005). Ready, SETT, go! Getting started with the SETT Framework. *Closing the Gap*, 23(6), 1-3. Retrieved from http://www.joyzabala.com/uploads/Zabala_CTG_Ready_SETT_.pdf
- Zhang, D. (2001). Self-determination and inclusion: Are students with mild mental retardation more self-determined in regular classrooms? *Education and Training in Mental Retardation and Developmental Disabilities*, 36(4), 357-362.
- Zhou, L., Smith, D. W., Parker, A. T., & Griffin-Shirley, N. (2013). The relationship between perceived computer competence and the employment outcomes of transition-aged youths with visual impairments. *Journal of Visual Impairment & Blindness*, 107(1), 43-53. Retrieved from <http://search.proquest.com/docview/1442480583?accountid=8483>
- Zins, J. E., Elias, M. J., Weissberg, R. P., Greenberg, M. T., Haynes, N. M., Frey, K. S., . . . Shriver, T. P. (1998). Enhancing learning through social and emotional education. *Think: The Journal of Creative and Critical Thinking*, 9, 18-20.

Appendix A – Botswana Ministry of Basic Education, Ministry of Employment, Labor Productivity and Skills Development, and Ministry of Tertiary Education, Research, Science and Technology Permission Letter

Date (Month/Day/Year)

The Permanent Secretary

Name of Government Ministry

Postal Address

Dear Mr., Mrs., Dr. Last Name (Permanent Secretary)

RE: APPLICATION FOR A RESEARCH PERMIT

I hereby apply for a permit to conduct research in Botswana. I am a doctoral candidate in the Department of Special Education at Ball State University in Muncie, Indiana (USA). Dr. Michael Harvey is serving as my committee chairperson and advisor. I am conducting research regarding teachers' views about postsecondary planning and effective transition programs for students with disabilities with an emphasis on students with visual impairments.

There has been an increased realization about the challenge of reaching appropriate post-school outcomes for youth with disabilities compared to their counterparts without disabilities despite the efforts made by policymakers and practitioners to close this gap (Cobb et al., 2013). Research continues to support the importance of teachers in helping students with disabilities to achieve successful post-school outcomes (Morningstar & Mazzotti, 2014; Reed & Curtis, 2012).

Although the transition of youth with visual impairments from school to postsecondary education and/or employment is a critical issue that has gained considerable attention, inadequate empirical research has been conducted to find out which variables contribute toward the successful transition for this population (McDonnall & Crudden, 2009). Research in this area has focused on transition for youth with disabilities in developed countries (i.e., United States) and does not adequately include developing countries (i.e., Botswana).

The purpose of my study is to explore the perceptions of secondary and vocational school teachers on effective transition programs for students with disabilities in a sampling of Botswana's secondary (junior and senior schools) and vocational schools.

Please find attached two copies of completed application forms, an approved research proposal, curriculum vitae (CV), endorsement letter, survey instruments, and informed consent forms.

Thank you in advance for your assistance on this matter.

Goitse Ookeditse

Goitse Ookeditse, Doctoral Candidate

Department of Special Education

Teachers College TC 705

Ball State University

2000 University Avenue

Muncie, IN 47306

gbookeditse@bsu.edu

Appendix B – Reply Letter from Botswana Ministry of Basic Education

TELEPHONE: 3655400/3655483
TELEX: 2944 THUTO BD
FAX: 3914271



MINISTRY OF BASIC EDUCATION
PRIVATE BAG 005
GABORONE, BOTSWANA

REF: DPRS 7/1/5 XXVIII (142) PAO-Research

21st February 2017

Mr Goitse Ookeditse
Private Bag 00702
Gaborone

Dear Sir

RE: PERMIT TO CONDUCT A RESEARCH STUDY

This serves to grant you permission to conduct your study in the sampled areas in Botswana to address the following research objectives/questions /topic:

Teacher's views about Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana.

It is of paramount importance to seek **Assent** and **Consent** from the Regional Directors of Kgatleng and South East, Vocational Principals, School Heads and teachers/lecturers of sampled Junior & Secondary Schools and Vocational institutions that you are going to collect data from. We hope that you will conduct your study as stated in your proposal and that you will adhere to research ethics. Failure to comply with the above stated, will result in immediate termination of the research permit. The validity of the permit is from **21st February 2017 to 20th February 2018**.

You are requested to submit a copy of your final report of the study as stated in the Research Guidelines (para 4.5 - 4.6, 2007) to the Ministry of Education and Skills Development, in the Department of Educational Planning and Research Services, Botswana.

Thank you.

Yours faithfully

Sir Wonder Masebola
For/Permanent Secretary



MOESD contact center

moesd16885@gov.bw

Private Bag 005 Gaborone



**Appendix C – Reply Letter from Botswana Ministry of Employment, Labor Productivity
and Skills Development**

PHYSICAL ADDRESS:
Block 8, Government Enclave
Khamma Crescent

POSTAL ADDRESS:
Private Bag 516
Gaborone, Botswana



REPUBLIC OF BOTSWANA

TEL: + (267) 361 1100
FAX: + (267) 397 5665
WEBSITE: www.gov.bw

MINISTRY OF EMPLOYMENT, LABOUR PRODUCTIVITY & SKILLS DEVELOPMENT

Ref: MELSD 1/16/1 I (19)

12 March 2017

Goitse Ookeditse
Private Bag 00702
Gaborone

Dear Sir/ Madam,

GRANT OF A RESEARCH PERMIT: GOITSE OOKEDITSE

Your application on the above matter refers.

You are hereby granted permission to carry out a research on ***"Teacher's views about post secondary planning and effective transition programs for students with disabilities with an emphasis on students with visual impairments"***. Permission is granted subject to the following conditions:

1. Copies of any report/video produced are deposited with the Director of Research and Development office of the University of Botswana, Botswana National Library Services, Botswana National Archives and Records Services and the **Ministry of Employment, Labour Productivity & Skills Development**.
2. The permit does not give authority to enter any premises, private establishment or protected areas. Permission for such entry should be negotiated with those concerned.
3. The permit is valid for a period beginning **16th May 2017 to 16th November 2017**.
4. You shall conduct the study/research according to the particulars furnished in the application form.
5. Failure to comply with the above stipulated conditions will result in the immediate cancellation of the permit.

Thank you

W. Moatshe
For/Permanent Secretary

VALUES: *Botho, Responsiveness, Excellence, Team Work*
TAGLINE: *"Unlocking New Opportunities Through Engagement"*



**Appendix D – Reply Letter from Botswana Ministry of Tertiary Education, Research,
Science and Technology**

TELEPHONE: 3655400/3655483
TELEX: 2944 THUTO BD
FAX: 3914271



REPUBLIC OF BOTSWANA

MINISTRY OF TERTIARY EDUCATION,
RESEARCH, SCIENCE AND TECHNOLOGY
PRIVATE BAG 00516
GABORONE

REF: MOTE 1/18/6 I (18)

2 March 2017

Mr Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304-6422

UNITED STATES OF AMERICA

Dear Sir

APPLICATION FOR RESEARCH PERMIT

Reference is made to your letter dated 16 February 2017 regarding the above captioned subject.

Your application for Research Permit for the proposed research regarding ***"Teachers' views about postsecondary planning and effective transition programmes for students with disabilities with an emphasis on students with visual impairments"*** has been granted for you to conduct a research at vocational schools. The permit is valid for one (1) year. You are kindly advised to peruse Section 4.4 to 5.0 of the 'Guidelines for Application for Research Permit' in Botswana.

Any changes in the proposed research should be communicated, without fail, to the Permanent Secretary, Ministry of Tertiary Education, Research, Science and Technology citing above reference.

By copy of this letter, the Director of Research, Science and Technology is advised to take note of this development and ensure that deliverables to Government are timely met.

Thank you.

Yours faithfully

Oupa T. Masesane
For Permanent Secretary

cc: Director, Department of Research Science and Technology



moestd16885@gov.bw Private Bag 005 Gaborone



Appendix E – Reply Letter from Kgatleng Region Director

Telephone: 5777226/723
Fax: 5777879



Republic of Botswana

Ministry of Basic Education
Kgatleng Region
P. O. Box 199
Mochudi

REFERENCE: KGATL 1/13/1 III (37) DRO

10th April 2017

Ookeditse Goitse

Dear Ookeditse

RE: PERMISSION TO DO A RESEARCH IN KGATLENG SCHOOLS

Kindly refer to your letter requesting for permission to carry out a research study in Katleng Schools. This letter serves to give you the permission as requested. Kindly provide us with a copy of your findings of the end of the research.

We wish you the best in your study.

Thank you

Yours faithfully

Kereng M. Koko
Director, Regional Operations – Katleng

KK/lea



Appendix F – Reply Letter from South East Region Director

MINISTRY OF BASIC EDUCATION

Botswana
P.O. Box 1000
Gaborone



Director: Regional Operations
South East
Private Bag 60003
Gaborone
022 224 2500

REF: SER1/15/2 IX (102)

29 March 2017

Gotse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304-6422
UNITED STATES OF AMERICA

Dear Sir,

PERMISSION TO CONDUCT A RESEARCH STUDY IN SOUTH EAST REGION

Reference is made to your letter dated 27 March 2017 requesting conduct a study in the Ministry of Basic Education- South East Region. The research will be on "Teacher's views about postsecondary Planning and effective Transition Programs for Students with Disabilities in Botswana" and will be carried out in different schools in South East Region as per attached list.

Permission is hereby granted for you to carry out the study as requested. The schools have been notified of your intent and you are advised to contact them directly.

Thank you.

Yours faithfully,

A.Z. Ernest

For/ Director, Regional Operations, South East Region



Appendix G – Reply Letter from Junior Secondary School #1

TELEPHONE: 5777933
 SCHOOL HEAD: 5748478
 FAX. NO: 5777994
 E-mail: radikolo@botsnet.bw



Republic of Botswana

Department of Secondary Education
 Radikolo C.J.S.S.
 Private Bag 0021
MOCHUDI

REF: Rad/1/4/9

23.05.17

Mr Goitse Ookeditse
 Private Bag 00702
 Gaborone

Dear Mr G. Ookeditse

REQUEST TO DO RESEARCH AT THE RADIKOLO J.S.S – YOURSELF

1.0 Your physical presence at the Radikolo J.S.S on Friday 19th May 2017 is hereby acknowledged.

2.0 You were seeking permission to do research at the Radikolo J.S.S on the Theme: "Teachers views about Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana"

3.0 Permission is granted to you to do the Research you are thinking about.

4.0 When you arrive you should contact Mr Letsholo Mabe (Senior Teacher 1- Staff Development and Mrs Tsholofelo Dikerwa (Senior Teacher 1- Guidance and Counselling)

5.0 The School expects you to conduct your research following research ethics.

Thank You

Yours Faithfully

TOLLO WILLIAM PHALAAGAE

(SCHOOL HEAD)



Appendix H – Reply Letter from Junior Secondary School #2


MINISTRY OF BASIC EDUCATION - KGATLENG REGION

Linchwe II Junior Secondary School

Private Bag 0065

MOCHUDI
BOTSWANA

 TEL:
 DIRECT LINE - SCHOOL HEAD:
 FAX:
 EMAIL ADDRESS:

 (267) 5777287
 (267) 5777008
 (267) 5777008
 lincwepag@gmail.com

Mr Goitse Ookeditse

Doctoral Candidate

Department of Special Education

Ball State University

Dear Sir

RE: REQUEST TO CONDUCT RESEARCH

We have no objection to your request to conduct research at Linchwe II Community Junior Secondary School.

Thank you

Yours Faithfully

P.S.T. PHOMETSI

SCHOOL HEAD



Appendix I – Reply Letter from Junior Secondary School #3

TELEPHONE: 5777444
FAX: 5777423
Ithutengcjss@info.bw



MINISTRY OF BASIC EDUCATION
Department of Secondary Education
Ithuteng Junior Sec. School
Private Bag N1
MOCHUDI

REF: ITCJSS

DATE: 16 June 2017

TO WHOM IT MAY CONCERN

This is to certify that Mr Goitse Ookeditse has been granted permission to conduct his doctoral research in Ithuteng CJSS

Thank you.

Moses K. Mariri (Mr)
SCHOOL HEAD

Appendix J – Reply Letter from Junior Secondary School #4

TEL: 5729904
FAX: 5729118



Department of Secondary Education
Bakgatle CJSS
Private Bag 16
MOCHUDI

REPUBLIC OF BOTSWANA

REF: BAK1/10/1

20 June 2017

Dear Sir/Madam

PERMISSION TO DO A RESEARCH - MR GOITSE OOKEDITSE

This letter serves to inform you that we have granted you permission to conduct your research study in our school. We will take part through answering questionnaire to help Mr Goitse Ookeditse to carryout his research on "Teacher's views about Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana".

Thank You.
Yours Faithfully

G.D. Seloka
Deputy School Head



Appendix K – Reply Letter from Junior Secondary School #5

MINISTRY OF EDUCATION AND SKILLS DEVELOPMENT



TEL: 5778216

FAX: 5778390

MADIKWE JSS

P/ BAG 003

SIKWANE

Republic of Botswana

Mr Goitse Ookeditse
Private Bag 00702
Gaborone

Dear Mr Ookeditse

RE: PERMISSION TO CONDUCT A RESEARCH

This serves to confirm that permission has been granted to you to conduct a research in this school with the assistance of our members of the teaching staff.

The topic to research is stated as;

"TEACHER'S VIEWS ABOUT POST SECONDARY PLANNING AND EFFECTIVE TRANSITION PROGRAMMES FOR STUDENTS WITH DISABILITIES IN BOTSWANA"

Please be made aware that individual members of staff will voluntarily choose to participate in the research /study.

Thank you

Yours faithfully

Jacob S.M. Kgakole
School Head



Appendix L – Reply Letter from Junior Secondary School #6



TELEPHONE: 5729764
 DIRECT LINE S /HEAD: 5729499
 FAX LINE: 5729711
 SUPPLIES TEL/FAX: 5729459 Republic of Botswana

MINISTRY OF BASIC EDUCATION
 ARTESIA COMMUNITY JUNIOR SECONDARY SCHOOL
 P O BOX 90
 ARTESIA

23 May 2017

Mr Goitse Ookeditse
 Private Bag 00702
 Gaborone

Dear Sir

**RE: PERMIT TO CONDUCT A RESEARCH STUDY AT
 ARTESIA JUNIOR SECONDARY SCHOOL**

The above captioned subject matter refers.

This serves to confirm that we have granted you permission to conduct a research study at Artesia Junior Secondary School.

Thank you.

Yours faithfully

D. Motlhanka
 School Head



cc. Director - Kgatleng Regional Operations



Appendix M – Reply Letter from Junior Secondary School #7



**OODIMA COMMUNITY JUNIOR
SECONDARY SCHOOL**

Tel: +267 3102250
Fax: +267 3102318
Direct: +267 3102317

Private Bag 001
Oodi,
Botswana

26 June 2017

RE: PERMISSION TO DO A RESEARCH IN KGATLENG SCHOOLS

Kindly refer to your letter requesting for permission to carry out a research study in Oodima Community Junior School. This serves to give you the permission as requested. Kindly provide us with a copy of your findings at the end of the research.

We wish you the best in your study

Thank you

Yours faithfully

T.M. Teo
School Head



VISION: Educated and globally competitive human resource by 2016.



Appendix N – Reply Letter from Junior Secondary School #8

TELEPHONE: 5777606
FAX: 5748182

MINISTRY OF BASIC EDUCATION

Sedibelo Junior Secondary School
Private Bag 0032
Mochudi



REPUBLIC OF BOTSWANA

REF: SE/II/D/6/6/4 VI (42)

26th June 2017

TO WHOM IT MAY CONCERN

**PERMISSION TO DO RESEARCH AT SEDIBELO JUNIOR SECONDARY SCHOOL
- GOITSE OOKEDITSE**

Kindly refer to the letter requesting for permission to carry out Research Study on **Teachers Views About Postsecondary and Effective Transition Programs for Students with Disabilities in Botswana** at Sedibelo Junior Secondary School in Mochudi (Kgatleng Region).

This serves to grant you permission as per the request. Therefore, we wish you the best in your research.

Thank you.

Yours faithfully

A.N. Tsheole
School Head



Appendix O – Reply Letter from Junior Secondary School #9

TELEPHONE: 5777331
5710039
FAX: 5777358
5728776



MINISTRY OF BASIC EDUCATION
Department of Secondary Education
Kganyane Junior Sec. School
Private Bag N2
Mochudi

26/04/17

Dear Mr. Goitse Ookeditse
2413 West Bethel Avenue Apartment
Muncie, Indiana
47304-6422
United States of America

**RE: PERMISSION TO CONDUCT A RESEARCH AT KGAMANYANE JUNIOR SECONDARY SCHOOL-
KGATLENG**

Reference is made to your letter dated 7th April 2017 requesting permission to carry out a research in Kgatleng region at Kganyane Junior Secondary School. This letter serves to give you the permission as requested.

We wish you the best in your study.

Thank you

Yours faithfully

Paul M. Mmesisi
School Head



Appendix P – Reply Letter from Junior Secondary School #10

Telephone: 3975628/9
 Fax: 3975553
 Email: Kgale Hill@info.bw

MINISTRY OF EDUCATION



Kgale Hill CJSS
 Private Bag B04
 Bontleng
 Botswana

Republic of Botswana

REF: KG/H/

29 May 2017

Mor Goitse Ookeditse
 2413 West Bethel Avenue Apartment 22
 Muncie, Indiana
 47304-6422
 United States of America

Dear Sir/Madam

**AUTHORISATION TO CONDUCT RESEARCH KGALE HILL JUNIOR
 SECONDARY SCHOOL – BOTSWANA**

Kgale Hill Junior Secondary School Management would accede to your request to conduct research in our institution. We sincerely believe that your research shall be conducted within the research ethics.

We hope you shall have a productive research that would enhance your academic pursuit.

Thank you.

Yours faithfully

Mr Solomon Setswe
 School Head

Appendix Q – Reply Letter from Junior Secondary School #11

TELEPHONE: 09267 3922700
FAX: 09267 3923071



Gaborone West Junior Secondary School
Plot 13306, Motopi Road
P O Box 20628
Gaborone, Botswana
E-mail: gwestjss@yahoo.com
enquiries@gwestjss.se.ac.bw

Ref: GBW 1.6.7

29th May 2017

Mr. Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304-6422
UNITED STATES OF AMERICA

RE: PERMISSION TO CONDUCT A RESEARCH STUDY IN SOUTH EAST REGION

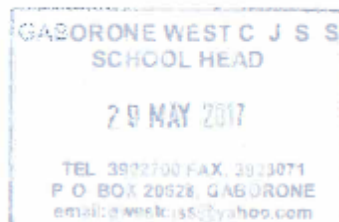
The above subject refers.

You are hereby granted permission to carry out a research at our school as requested.
The Senior Teacher (Staff Development) will assist you to administer the questionnaires.

Thanking you in advance.

Yours faithfully

Mathiba G. (Mr)
School Head



Appendix R – Reply Letter from Junior Secondary School #12

TELEPHONE: 3909055
BASIC EDUCATION
TELEFAX: 3182279



MINISTRY OF

Sir Seretse Khama

Memorial CJSS

Private Bag BR 68
Gaborone.
BOTSWANA

Republic of Botswana

REFERENCE:

Mr Goitse Okeditse

Sir Seretse Khama JSS
Private bag BR68
Gaborone

18th April 2017

Dear Sir

**PERMIT TO CONDUCT A RESEARCH STUDY-YOURSELF
ON THE RESEARCH TOPIC:**

*Teacher's views about Post-Secondary Planning and effective transition Programs for Students
with Disabilities in Botswana*

The above matter refers;

This communication grants you permission to conduct a research study at Sir Seretse Khama Memorial JSS, in Gaborone, Block 3-Botswana, for the period running from the 21st February 2017 to the 20th February 2018; this follows your request to undertake such

Thank you

Yours Faithfully

Appendix S – Reply Letter from Junior Secondary School #13

TELEPHONE: 3900-317

FAX: 3959-261



REPUBLIC OF BOTSWANA

MINISTRY OF BASIC EDUCATION
MAOKA CJSS
PRIVATE BAG BR 157
GABORONE, BOTSWANA
Plot: 17987

9th June 2017

Mr Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304-6422
United States of America

Dear Sir

Permission to conduct research study in Maoka CJSS

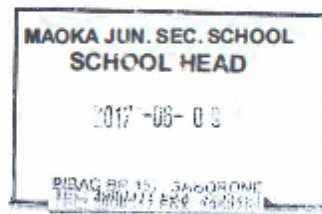
Reference is made to your letter dated 7th April 2017 requesting to conduct a study in Maoka CJSS, 'Teacher's views about post-secondary Planning and effective Transition Programs for students with disabilities in Botswana.'

Permission is granted to you to carry out research.

Thank you.

Yours faithfully

BJ Bagwasi



Appendix T – Reply Letter from Junior Secondary School #14

TELEPHONE: 3926927
 FAX: 3926662
 E-mail: motswedijss@yahoo.com

MINISTRY OF BASIC EDUCATION



Republic of Botswana

The School Head
 Motswedi C.J.S.S
 Private Bag BR 6
 Broadhurst
 Gaborone

21/06/2017

Goitse Ooketsa
 2413 West Bethel Avenue Apartment 22
 Muncie, Indiana
 47304-6422
 UNITED STATES OF AMERICA

Dear Sir,

PERMISSION TO CONDUCT A RESEARCH STUDY

The above captioned subject matter refers.

This communiqué serves to inform you that permission to conduct research study on "Teacher's views about postsecondary planning and effective Transition Programs for Student with Disabilities in Botswana" is granted.

Thank you.

Yours faithfully

S.H. Mokgolodi
 School Head
 shmokgolodi@gmail.com



Appendix U – Reply Letter from Junior Secondary School #15

TELEPHONE: 3915116

FAX: 3161702



REPUBLIC OF BOTSWANA

MINISTRY OF BASIC EDUCATION
BONNINGTON CJ.S.S
PRIVATE BAG 00454
GABORONE

4th May 2017

Mr Goitse Ookeditse
Private Bag 00702
Gaborone

Dear Sir

RE: CONDUCT OF RESEARCH IN OUR SCHOOL – YOURSELF

The above matter concerns.

We are grateful to allow you to conduct research amongst teachers as requested.

Thank you.

Yours faithfully

H. Ledimo

Deputy School Head



MoESD contact number

16885

moesd16885@gov.bw

Private Bag 005 Gaborone



Appendix V – Reply Letter from Junior Secondary School #16

Telephone: 5390230
Fax: 5390608

MINISTRY OF BASIC EDUCATION



Republic of Botswana

Ramotswa JSS
Private Bag 008
Ramotswa
Botswana

29 June 2017

Mr Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, India
47304-6422
United States of America

Dear Mr Ookeditse,

RE: CONSENT TO CONDUCT RESEARCH IN OUR SCHOOL - YOURSELF

Reference is made to your letter dated 7th April 2017 in which you asked for permission to conduct a research. Permission has been granted to you to conduct a research in our school as per your request between May 8th 2017 and July 7th 2017.

Thank you.

Yours faithfully

E. Segaetsho
Deputy School Head

Appendix W – Reply Letter from Junior Secondary School #17

TELEPHONE: (+267) 3953477

FAX: (+267) 3902967

E-MAIL: tlogatloga@tlogatloga.bw



REPUBLIC OF BOTSWANA

TLOGATLOGA COMMUNITY JUNIOR SECONDARY SCHOOL

PRIVATE BAG 0098

GABORONE

BOTSWANA

29th June 2017

TO WHOM IT AMT CONCERN

This serves to confirm that **Mr Goitse Ookeditse** from Ball State University in Muncie, Indiana (USA) has been granted **permission** to carry out a Research in Tlogatloga Community Junior Secondary School in June 2017.

Thank you.

Yours faithfully

L K Lekuntwane
Deputy School Head



Appendix X – Reply Letter from Junior Secondary School #18

MINISTRY OF BASIC EDUCATION



Marang Community Junior Secondary School

Plot: 10467-Tsholofelo
P/Bag BR 271
Gaborone, Botswana

Phone: 3926343
Fax: 3927785
Sch. Head: 3167723

Email: marangjss@gov.bw



30 June 2017

Mr Goitse Ookeditse

Private Bag 00702

Gaborone

Dear sir

RE: Permission to Conduct Research study in Marang CJSS

Reference is made to your request to conduct a study in Marang CJSS, permission is hereby granted for you to carry out the study as requested.

Thank You.

Yours faithfully

Tsholofelo Mosigi
(For School Head)

Appendix Y – Reply Letter from Junior Secondary School #19

TELEPHONE: 5390114
FAX[S/HEAD]: 5390049



REPUBLIC OF BOTSWANA
Ministry of Education & Skills Development

THE SCHOOL HEAD
TAUNG COMM. JUNIOR SECONDARY SCHOOL
PRIVATE BAG X06
RAMOTSWA

04th July 2017

Dear Mr. Goitse Ookeditse

This is to confirm that you are granted permission to conduct your research at the above mentioned secondary school. We are pleased to assist you to carry out your research as a requirement for your doctorate Degree. We are also very pleased to be part of this research and we hope that the findings will assist in restructuring our education system to benefit everyone irrespective of how they are.

Thank you

Yours Faithfully



Lorato Phuthegfo (Deputy School Head)



Appendix Z – Reply Letter from Junior Secondary School #20

TELEPHONE: 5339215
FAX: 5339201



Republic of Botswana

Mogobane C.J.S.S
Private Bag 002
Otse

29 May 2017

2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304 - 6422
United States of America

ATTENTION: MR. GOITSE OOKEDITSE

Dear Sir

RE: CONSENT TO CONDUCT RESEARCH IN OUR SCHOOL

Reference is made to your letter dated 7 April 2017 in which you sought consent to conduct research in our school.

I have the pleasure to inform you that you have been granted permission to conduct the research as per your request. I hope this research will not benefit you alone but the school as well.

Thank you again for considering our school to be a place you could carry out that kind of research. I further wish you the best as you carry out this research and in your endeavour.

Yours Faithfully

Mrs. Lorato Onalenna Mbulawa
(Acting School Head)



Appendix AA – Reply Letter from Junior Secondary School #21



TELEPHONE: 5390317
EDUCATION
FAX: 5390907
Head's Direct: 5380244

REPUBLIC OF BOTSWANA

MINISTRY OF

BAITLOTI CJSS
PRIVATE BAG 007
RAMOTSWA

4 July 2017

Dear Mr Ookeditse

RE: PERMISSION TO CONDUCT A RESEARCH

This serves to confirm that permission has been granted to you to conduct a research in this school with the assistance of our members of the teaching staff.

Topic to research is stated as:

"Teacher views about Post-Secondary Planning and Effective Transition Programs for Students with Disabilities in Botswana"

Please be made aware that individual members of staff will voluntarily choose to participate in the research study.

Thank You

Yours faithfully

Keneilwe L. Phoga



Appendix BB – Reply Letter from Junior Secondary School #22

Tel: +267-5337211
 Fax: +267-5337289
 Email: baratanicjs@gmail.com

MINISTRY OF EDUCATION



REPUBLIC OF BOTSWANA

BARATANI JUNIOR SECONDARY SCHOOL

Private Bag 003

Otse,

Botswana

*All Correspondence to be addressed
 to the School Head*

27 June 2017

Mr Goitse Ookeditse
 United States of America

Dear Sir

PERMISSION TO CONDUCT RESEARCH

Reference is made to your letter dated **7 April 2017** with regard to the
 aforementioned issue.

The school management is pleased to grant you permission to conduct your
 research in Baratani JSS with teaching staff.

Kindly liaise with the Deputy School Head on this matter.

Thank you.

Yours faithfully

.....
 T.N. Majwabe (Mrs)
 School Head



Appendix CC – Reply Letter from Junior Secondary School #23

Telephone: 3928504
Fax: 3925049

MINISTRY OF BASIC EDUCATION



Republic of Botswana

Matlala JSS
Private Bag T03
Tlokweng
Botswana

10th July 2017

Mr Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, India
47304-6422
United States of America

Dear Mr Ookeditse,

RE: CONSENT TO CONDUCT RESEARCH IN OUR SCHOOL - YOURSELF

Reference is made to your letter dated 7th April 2017 in which you asked for permission to conduct a research. Permission has been granted to you to conduct a research in our school as per your request between May 8th 2017 and July 7th 2017.

Thank you.

Yours faithfully

G. A. Siwane
For/School head

Appendix DD – Reply Letter from Junior Secondary School #24

TELEPHONE: 5390766

FAX: 5391926



REPUBLIC OF BOTSWANA

MINISTRY OF BASIC EDUCATION
KILEMOGILE C.J.S.S
PRIVATE BAG 0011
RAMOTSWA

5th June 2017

Mr Goitse Ookeditse
Private Bag 00702
Gaborone

Dear Sir

RE: CONDUCT OF RESEARCH IN OUR SCHOOL – YOURSELF

The above matter concerns.

We are grateful to allow you to conduct research amongst teachers as requested.

Thank you.

Yours faithfully

Deputy School Head



MoESD contact number

16885

moesd16885@gov.bw

Private Bag 005 Gaborone



Appendix EE – Reply Letter from Senior Secondary School #1



MOLEFI SENIOR SECONDARY SCHOOL
PRIVATE BAG 0012

MOCHUDI

BOTSWANA

SOUTHERN AFRICA

Telephone:(Headmaster):5748058 Switchboard:5777339
 FAX:57 77284



16th May 2017

Mr Goitse Ookeditse
 United States of America

Dear Sir

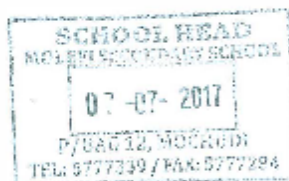
RE: CONDUCT OF RESEARCH IN OUR SCHOOL-YOURSELF

The above matter concerns.

We are grateful to allow you to conduct research amongst teachers as requested.

Thank you.

G Magwape
 Deputy School Head



Appendix FF – Reply Letter from Senior Secondary School #2



St Joseph's College, Kgale.

P.O. Box 13 Gaborone.
 Republic of Botswana
 Phone No. 3952951
 Fax No. 3957871
 Email: stjosephs@info.bw

05 July 2017

Mr Goitse Ookeditse
 Department of Special Education
 Ball State University
 Muncie, IN 47306 (765)

Dear Mr Ookeditse

Re: Research Study - yourself

This serves to inform you that you have been granted permission to conduct a research in St Joseph's College for your Doctorate Studies from the Department of Special Education in Ball State University.

Thank you.

Yours faithfully

C. Male
 (Principal)

Appendix GG – Reply Letter from Senior Secondary School #3

TELEPHONE: (267) 3952587
FAX: (267) 3911048



Republic Of Botswana
MINISTRY OF BASIC EDUCATION

Naledi Senior Secondary School
P O Box 20527
GABORONE

BOTSWANA

30th May 2017

Mr. Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304 – 6422
United States of America

Dear Sir

PERMISSION TO CONDUCT RESEARCH IN NALEDI SENIOR SECONDARY SCHOOL

Reference is made to your letter dated 7th April 2017 requesting to conduct a Research in Naledi Senior Secondary School on “Teachers’ views about post-secondary planning and effective transition programs for students with disabilities in Botswana.

Permission is hereby granted for you to carry out research as requested.

Thank you

Yours faithfully

V.S. Kgakasi (Senior Teacher Guidance & Counselling)
For / School Head

Appendix HH – Reply Letter from Senior Secondary School #4

UNITED CONGREGATIONAL CHURCH
OF SOUTHERN AFRICA

Tel: 5337213/4
Fax: 5337111



PRIVATE BAG 11
OTSE
BOTSWANA

FIAT LUX

REF: MC / E / 6

31st May 2017

Mr Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie Indiana
47304 – 6422
UNITED STATES OF AMERICA

Dear Sir

**RE: GRANTED PERMISSION TO CONDUCT RESEARCH IN
MOEDING COLLEGE**

Reference is made to your letter dated 7th April 2017 requesting for permission to conduct research in Moeding College.

By copy of this letter you are granted permission to conduct research between 8th May 2017 and 7th July 2017.

Let me take this opportunity to wish you good luck in your study.

Thank you.

Yours faithfully

MOEDING COLLEGE
P/BAG 11, OTSE

31 MAY 2017

TEL: 5337213 / 4
FAX: 5337111
PRINCIPAL

M. Kgomela
SCHOOL HEAD.

Appendix II – Reply Letter from Vocational School #1

Telephone : (+267) 368 4600/4700
Fax : (+267) 393 4696



REPUBLIC OF BOTSWANA

Private Bag 003 Oodi
Botswana

MINISTRY OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY
OODI COLLEGE OF APPLIED ARTS & TECHNOLOGY

REF: OCAAT 13/1 V (21)

18 May 2017

2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304-6422
United States of America

Consent To Conduct Research

Reference is made to your letter on the above subject matter.

We are pleased to inform you that your request has been acceded to. We urge you to contact our Research Coordinator Mr. Thuso Nkatse at (+ 267) 3684645 to arrange for logistics involved. We have attached a list of staff as requested.

I can be contacted at (+267) 3684604 or via email at ftsiako@gov.bw if necessary.

Yours faithfully

Fidel Tsiako
For / Principal



TOLL FREE: 0800-600-185



Appendix JJ – Reply Letter from Vocational School #2

Telephone: (+267) 3636200
Fax: (+267) 3903382



Kgale View
Private Bag 00358, Gaborone
Botswana

MINISTRY OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY

GABORONE TECHNICAL COLLEGE

6th July 2017

Mr Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Munde, Indiana
47304-6422

Dear Mr Ookeditse

PERMISSION TO CONDUCT RESEARCH MR GOITSE OOKEDITSE

You are hereby given permission to conduct research at Gaborone Technical College from February 2017 to February 2018 as per authorisation letter from the Permanent Secretary of MoTE.

Thank you.

Yours faithfully

P Mmifinyana
Deputy Principal

Appendix KK – Reply Letter from Vocational School #3

TELEPHONE: 3928332
 FAX: 3928617
 REFERENCE:



REPUBLIC OF BOTSWANA

TLOKWENG BRIGADE
 PRIVATE BAG TO 41
 TLOKWENG

30th May, 2017

Mr Goitse Ookeditse
 Private Bag 00702
 Gaborone

Dear Sir/Madam

RE: PERMISSION TO CARRY OUT A RESEARCH

Reference is made to your letter.

In response to your request to carry out a research in our institution, we are pleased to inform you that you have been granted a permission to carry out the research on "*Teacher's views about post secondary planning and effective transition programs for students with disabilities with an emphasis on students with visual impairments*".

We thank you for showing interest in our Institution. For further details, please feel free to contact the undersigned

Yours faithfully

D. N. Modala
 For /Head Of Satellite

MINISTRY OF EMPLOYMENT, LABOUR
 PRODUCTIVITY & SKILLS DEVELOPMENT
 DEPARTMENT OF SKILLS DEVELOPMENT

30 MAY 2017

HEAD OF DEPARTMENT
 TLOKWENG BRIGADE
 PBAG TO 41 TLOKWENG
 TEL: 3928332 FAX: 3928617

Appendix LL – Reply Letter from Vocational School #4



KGATLENG BRIGADE CENTRE

DEPARTMENT SKILLS DEVELOPMENT

P.O. Box 208, MOCHUDI, Botswana
Telephone: (267) 5777356/5748749/5748125
Fax: (267) 57 48314/5



*Developing Botswana's
Human Capital*

Ref: VE/KBC/003/1 (5)

22nd May 2017

Goitse Ookeditse
Private Bag 00702
Gaborone

Sir

GRANT OF A RESEARCH PERMIT – GOITSE OOKEDITSE

The above matter refers.

You are hereby granted permission to carry out a research on Teacher's views about post secondary planning and effective transition programmes for students with disabilities.

We wish you success in your research exercise.

Thank you.

Yours Faithfully

Ms N. Ditlhakeng

Deputy Principal.

Appendix MM – Reply Letter from Vocational School #5

NALEDI BRIGADE

P O Box 1026 Gaborone Botswana
Telephone 00267 – 3908860 Fax 3900291



REPUBLIC OF BOTSWANA

MINISTRY OF EMPLOYMENT LABOUR
PRODUCTIVITY AND SKILLS DEVELOPMENT
Department of Skills Development
(DSD)

Goitse Ookeditse
2413 West Bethel Avenue Apartment 22
Muncie, Indiana
47304 – 6422
United States of America

19th April, 2017

Dear Sir,

PERMISSION TO CONDUCT A RESEARCH STUDY

Reference is made to your letter dated the 7th April, 2017 requesting to conduct a research study in our institution. Permission is hereby granted to carry out the research as requested.

Wishing you good luck with your research.

Thank you.

Yours Faithfully

G. Dipogiso

Head of Satellite

MINISTRY OF EMPLOYMENT LABOUR
PRODUCTIVITY & SKILLS DEVELOPMENT
DEPARTMENT OF SKILLS DEVELOPMENT
19 APR 2017
HEAD OF SATELLITE
NALEDI BRIGADE
P. O. BOX 1026 GABORONE
TEL: 3908860 FAX: 3900291

Appendix NN – Reply Letter from Vocational School #6

TELEPHONE: 5390226/5390223
W/SHOP: 5380620
HOD: 5390301
FAX: 5390900



REPUBLIC OF BOTSWANA

MINISTRY OF EMPLOYMENT, LABOUR
PRODUCTIVITY & SKILLS DEVELOPMENT
TSWELOPELE BRIGADE CENTRE
PRIVATE BAG 99,
RAMOTSWA

Ref: TSW/VE 1/1

June 15, 2017

Goitse Ookeditse
Private Bag 00702
Gaborone

Dear Ookeditse,

REQUEST FOR A RESEARCH PERMIT

This serves to acknowledge receipt of a Savingram Ref: MELSD 1/16/1 I (19) dated 12 May 2017 on the above captioned matter.

Your request has been acceded to. You can carry out a research on teachers' views about post secondary planning and effective transition of programs for students with disabilities with an emphasis on students with visual impairments.

Yours faithfully,

B. M. Basima
Principal



TSWELLOPELE BRIGADE CENTRE

Email: tswelelopele_brigade@yahoo.com



Appendix OO – Junior Secondary School Survey

Survey Title: *Junior Secondary Teachers' Views about Postsecondary Planning and Effective Preparation for Students with Disabilities to Transition to Postsecondary Environments in Botswana*

Section 1: About This Survey

Purpose: The purpose of this questionnaire is to explore the experiences and views of junior secondary school teachers in helping students with disabilities to transition from junior secondary school to vocational training, senior secondary education, higher education and/or employment in Botswana. The survey seeks to explore teachers' knowledge, beliefs and perceptions about what practices contribute to or impede successful postsecondary education and/or employment outcomes of students with visual impairments at secondary schools. Through this questionnaire, information will be obtained from general education teachers, special education teachers, and guidance and counseling teachers on their knowledge, experiences, and practices that result in successful transition to post-school outcomes.

By examining teachers' views about transition planning, this study will add to the scholarly research and literature in the field of special education. The study will contribute to an understanding of evidence-based practices that assist secondary school students with visual impairments to have improved post-school outcomes. Possible gains of this study include a contribution to an enhanced understanding of teachers' perceptions and the elements that contribute to or act as obstacles to the effective implementation of transition services. Consequently, knowledge of best practices regarding transition planning for youth with disabilities can go a long way in informing special education policy in Botswana. This is a critical step towards establishing a comprehensive transition framework for youths with disabilities which will partly address youth employment challenges in Botswana. The survey will take about 20-25 minutes and will be completed at your school. Participation in this survey is completely voluntary. You are free to opt to agree to or decline the request to participate in the study. You are also free to choose not to answer certain questions. You may also choose to withdraw from participating in this study at any time.

Section 2: Demographic Information

Please provide your background information by circling the item in each question that best describes you.

1. What is your gender?

- a. Male
- b. Female

2. What is your current age?

- a. 20-30 years
- b. 31-40 years

- c. 41-50 years
- d. 51-60 years
- e. 61+ years

3. What is your highest education qualification?

- a. Diploma
- b. Bachelor's Degree
- c. Masters Degree
- d. Doctoral Degree
- e. Other

4. What type of teacher were you trained as?

- a. General Education Teacher (Subject Teacher)
- b. Special Education Teacher
- c. Guidance and Counseling Teacher
- d. Other

5. What is your current position in your school?

- a. General Education Teacher (Subject Teacher)
- b. Special Education Teacher
- c. Guidance and Counseling Teacher

6. What is your current role in the school?

- a. Subject Teacher
- b. Class Teacher
- c. Senior Teacher
- d. Head of Department

7. For how long have you been in the teaching profession?

- a. 1-5 years
- b. 6-10 years
- c. 11-15 years
- d. 16-20 years
- e. More than 20 years

8. How long have you worked at your current school?

- a. 1-2 years
- b. 3-5 years
- c. 6-10 years
- d. 11-15 years

- e. 16-20 years
- f. More than 20 years

9. In which region is your school?

- a. Kgatleng
- b. South East

10. How would you best describe your current school setting?

- a. Rural
- b. Semi-Urban
- c. Urban

11. Which secondary class or form are you teaching currently?

- a. Form 1
- b. Form 2
- c. Form 3
- d. Form 1 and Form 2
- e. Form 2 and Form 3
- f. None of the above
- g. All of the above

12. Do you have a student or students with a disability in your class?

- a. Yes
- b. No

13. Have you ever taught a student with a disability?

- a. Yes
- b. No

14. Do you have a student with a visual impairment in your class?

- a. Yes
- b. No

15. Have you ever taught a student with a visual impairment?

- a. Yes
- b. No

Section 3: Key Terms

The aim of this section is to provide the participant with a definition of key terms utilized in this study. The definitions of these terms are based on literature and provide a common understanding of the main principles and concepts selected for exploration in this study regarding secondary transition, planning and preparation approaches as well as their impact on outcomes for students with disabilities. The survey items were developed based on the United States legal framework, dissertation research conducted by Dr. Daniel Dogbe, with the final survey instrument adjusted to suit the cultural context of Botswana.

Transition is a term that refers to the changes in a person's life, adjustments, and cumulative experiences that take place in youths as they progress from one stage of life to another (e.g., from school environments to employment and independent living) (Wehman, 2006).

Transition Planning is a process for all students who have an Individualized Education Program (IEP) in kindergarten to high school education aimed at facilitating students' movement from school to post-school activities (IDEA, 2004). For the purpose of this study, a written plan or an official documentation of a student's goals and objectives developed with input from the student's teachers to address the student's educational needs, may be a substitute for the IEP. Thus, transition planning refers to what a school is doing to ensure that students pass their final year examinations and proceed to senior secondary school, vocational training, higher education, and/or employment.

Transition Services are a coordinated set of activities for a child having a disability that:

(A) is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including post-secondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation

(B) is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and

(C) includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation. (34 C.F.R § 300.43 (a), 2004)

Since the IDEA definition has significant cultural implications for the United States context, a more relevant definition to the context of Botswana by Halpern is adopted for this study.

According to Halpern, transition refers to:

A change in status from behaving primarily as a student to assuming emergent adult roles in the community. These roles include employment, participating in post-secondary education, maintaining a home, becoming appropriately involved in the community, and experiencing satisfactory personal and social relationships (Halpern, 1994, p. 117).

Self-Determination is defined as the blending of a person's skills, knowledge, and beliefs that give him/her the ability to engage in goal-oriented, self-regulated, and independent behavior (Algozzine, Browder, Karvonen, Test, & Wood, 2001). An example of a student with self-determination skills is one who can make choices, provide a solution to problems, set goals, assess options, make efforts to attain one's goals, and take responsibility for one's actions (Rowe et al., 2013; Wehmeyer, 2001).

Assistive Technology Device refers to "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability" (34 C.F.R § 1401(1)(A)). An assistive technology device should impact a child with a disability's functioning. An example is a Closed Circuit Television (CCTV) which enables a child with a visual impairment to read regular print materials thereby leading to an improvement in his/her ability to complete school work.

Orientation and Mobility refers to the process of using a person's senses to establish his/her position in relation to the environment and objects within (orientation), as well as the person's ability and readiness to move about his/her environment safely and freely (mobility) (Hill, 1986). An example is the use of a white cane to increase the ability of a student with a visual impairment to move around the school environment and classroom to participate in school activities.

Section 3: Knowledge and Belief Statements Regarding Postsecondary Planning and Effective Transition Programs for Students with Disabilities

This section is meant to explore your beliefs and knowledge of transition planning and programming, as well as services and practices for supporting students to transition from junior secondary education and experience successful post-school outcomes. Please rate your degree of agreement with the items in this section by circling the appropriate response.

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Participants Transition Beliefs

A. I believe that transition for students with disabilities to postsecondary settings should encompass the following components:

- | | |
|--|-----------|
| 16. A written plan for each individual student with a disability | 1—2—3—4—5 |
| 17. A variety of activities to help transition to employment | 1—2—3—4—5 |
| 18. Specific goals and objectives corresponding to specific post-school outcomes | 1—2—3—4—5 |
| 19. The strengths, abilities, priorities, interests, and needs of each student | 1—2—3—4—5 |
| 20. Constant assessment resulting in securing employment after school | 1—2—3—4—5 |
| 21. Teaching students both academic and functional skills | 1—2—3—4—5 |
| 22. Postsecondary education and/or employment as the main outcomes following secondary school completion | 1—2—3—4—5 |
| 23. Involvement of students' parents/families in transition planning and service delivery | 1—2—3—4—5 |
| 24. Collaboration with school staff and agencies outside the school | 1—2—3—4—5 |

Participants' Transition Knowledge

B. I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:

- | | |
|---|-----------|
| 25. The student transition planning process following completion of Form 3 | 1—2—3—4—5 |
| 26. Planning begins from Form 1 to Form 3 | 1—2—3—4—5 |
| 27. Planning involves continuous assessment for JCE | 1—2—3—4—5 |
| 28. Monitoring of academic and functional skills outcome goals | 1—2—3—4—5 |
| 29. Academic and functional skills outcome goals can be attained | 1—2—3—4—5 |
| 30. A student's planning is based on his/her strengths, abilities, priorities, interests, and needs | 1—2—3—4—5 |
| 31. JCE instructional goals are linked to senior secondary education | 1—2—3—4—5 |
| 32. JCE instructional goals are linked to technical and vocational education | 1—2—3—4—5 |
| 33. JCE instructional goals are linked to postsecondary employment | 1—2—3—4—5 |
| 34. Transition services and supports for students with disabilities after completion of secondary education | 1—2—3—4—5 |

Current Transition Practices Perceptions

C. The current JCE practices in my school involve:

- | | |
|--|-----------|
| 35. Participation of students in the transition planning process | 1—2—3—4—5 |
| 36. Participation of school staff only in the planning process | 1—2—3—4—5 |
| 37. Participation of school staff and parents only in the planning process | 1—2—3—4—5 |
| 38. Participation of school staff, parents, and students | 1—2—3—4—5 |
| 39. Participation of school staff and other agencies only | 1—2—3—4—5 |
| 40. Participation of school staff, students, parents, and agencies | 1—2—3—4—5 |
| 41. Academic subject instructions related to postsecondary education, vocational education training, and/or employment | 1—2—3—4—5 |
| 42. Functional subject instruction related to postsecondary education, vocational education, and/or employment | 1—2—3—4—5 |

- | | |
|---|-----------|
| 43. Core and optional subjects that promote successful post-school outcomes | 1—2—3—4—5 |
| 44. Junior secondary supports related to successful transition outcomes | 1—2—3—4—5 |
| 45. Inclusive education supports related to transition services provision | 1—2—3—4—5 |

Section 4: Specific Practices for Students with Visual Impairments

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Effective Transition Planning Strategies

A. I believe the current junior secondary school program prepares students with visual impairments for successful post-school outcomes through the following:

- | | |
|--|-----------|
| 46. Training students in self-determination skills | 1—2—3—4—5 |
| 47. Training of students in the use of assistive technology | 1—2—3—4—5 |
| 48. Training of students in orientation and mobility skills | 1—2—3—4—5 |
| 49. Training of students in social skills | 1—2—3—4—5 |
| 50. Providing students with unpaid work experiences within the school | 1—2—3—4—5 |
| 51. Providing students with unpaid work experiences outside the school | 1—2—3—4—5 |
| 52. Providing students with paid work opportunities within the school | 1—2—3—4—5 |
| 53. Providing students with paid work opportunities outside the school | 1—2—3—4—5 |
| 54. Providing students with vocational instruction | 1—2—3—4—5 |
| 55. Training of students in academic skills | 1—2—3—4—5 |

Coursework for Senior Secondary School Participation

B. I believe the following subjects prepare students with visual impairments well for senior secondary education participation:

- | | |
|-----------------------|-----------|
| 56. Math | 1—2—3—4—5 |
| 57. Science | 1—2—3—4—5 |
| 58. English Language | 1—2—3—4—5 |
| 59. Setswana Language | 1—2—3—4—5 |
| 60. Social Studies | 1—2—3—4—5 |
| 61. Agriculture | 1—2—3—4—5 |
| 62. Optional Subjects | 1—2—3—4—5 |

Coursework for Participation in Employment

C. I believe the following subjects prepare students with visual impairments well for employment participation:

- | | |
|-----------------------|-----------|
| 63. Math | 1—2—3—4—5 |
| 64. Science | 1—2—3—4—5 |
| 65. English Language | 1—2—3—4—5 |
| 66. Setswana Language | 1—2—3—4—5 |
| 67. Social Studies | 1—2—3—4—5 |
| 68. Agriculture | 1—2—3—4—5 |
| 69. Optional Subjects | 1—2—3—4—5 |

Coursework for Vocational and Technical Training Participation

D. I believe the following subjects prepare students with visual impairments well for technical and vocational education training participation:

- | | |
|-----------------------|-----------|
| 70. Math | 1—2—3—4—5 |
| 71. Science | 1—2—3—4—5 |
| 72. English Language | 1—2—3—4—5 |
| 73. Setswana Language | 1—2—3—4—5 |
| 74. Social Studies | 1—2—3—4—5 |
| 75. Agriculture | 1—2—3—4—5 |
| 76. Optional Subjects | 1—2—3—4—5 |

Section 5: Teachers' Transition Challenges/Barriers

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Barriers to Effective Implementation of Transition Practices

A. I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:

- | | |
|--|-----------|
| 77. I am inadequately trained to support the transition process | 1—2—3—4—5 |
| 78. My school does not have enough staff to support the transition process | 1—2—3—4—5 |
| 79. My school does not have enough financial resources to support the transition process | 1—2—3—4—5 |
| 80. School administrators provide little support for students' transition | 1—2—3—4—5 |
| 81. There is lack of professional development activities related to transition | 1—2—3—4—5 |

- | | |
|--|-----------|
| 82. Heavy teaching loads limit the level of transition support | 1—2—3—4—5 |
| 83. There is little or no collaboration with external agencies in the transition process | 1—2—3—4—5 |
| 84. There are no clear transition guidelines in my school | 1—2—3—4—5 |
| 85. It is difficult to align academic subjects with postsecondary goals | 1—2—3—4—5 |

Concluding Statement

Your time is highly appreciated and thank you once again for participating in this survey.

Appendix PP – Senior Secondary School Survey

Survey Title: *Senior Secondary Teachers' Views about Postsecondary Planning and Effective Preparation for Students with Disabilities to Transition to Postsecondary Environments in Botswana*

Section 1: About This Survey

Purpose: The purpose of this questionnaire is to explore the experiences and views of senior secondary school teachers in helping students with disabilities to transition from senior secondary school to vocational training, higher education and/or employment in Botswana. The survey seeks to explore teachers' knowledge, beliefs and perceptions about what practices contribute to or impede successful postsecondary education and/or employment outcomes of students with visual impairments at secondary schools. Through this questionnaire, information will be obtained from general education teachers, special education teachers, and guidance and counseling teachers on their knowledge, experiences, and practices that result in successful transition to post-school outcomes.

By examining teachers' views about transition planning, this study will add to the scholarly research and literature in the field of special education. The study will contribute to an understanding of evidence-based practices that assist secondary school students with visual impairments to have improved post-school outcomes. Possible gains of this study include a contribution to an enhanced understanding of teachers' perceptions and the elements that contribute to or act as obstacles to the effective implementation of transition services. Consequently, knowledge of best practices regarding transition planning for youth with disabilities can go a long way in informing special education policy in Botswana. This is a critical step towards establishing a comprehensive transition framework for youths with disabilities which will partly address youth employment challenges in Botswana. The survey will require about 20-25 minutes and will be completed at your school. Participation in this survey is completely voluntary. You are free to opt to agree to or decline the request to participate in the study. You are also free to choose not to answer certain questions. You may also choose to withdraw from participating in this study at any time.

Section 2: Demographic Information

Please provide your background information by circling the item in each question that best describes you.

1. What is your gender?

- a. Male
- b. Female

2. What is your current age?

- a. 20-30 years
- b. 31-40 years

- c. 41-50 years
- d. 51-60 years
- e. 61+ years

3. What is your highest education qualification?

- a. Bachelor's Degree
- b. Masters Degree
- c. Doctoral Degree
- d. Other

4. What type of teacher were you trained as?

- a. General Education Teacher (Subject Teacher)
- b. Special Education Teacher
- c. Guidance and Counseling Teacher
- d. Other

5. What is your current position in the school?

- a. General Education Teacher (Subject Teacher)
- b. Special Education Teacher
- c. Guidance and Counseling Teacher

6. What is your current role in the school?

- a. Subject Teacher
- b. Class Teacher
- c. Senior Teacher
- d. Head of Department

7. For how long have you been in the teaching profession?

- a. 1-5 years
- b. 6-10 years
- c. 11-15 years
- d. 16-20 years
- e. More than 20 years

8. How long have you worked at your current school?

- a. 1-2 years
- b. 2-5 years
- c. 6-10 years
- d. 11-15 years
- e. 16-20 years

f. More than 20 years

9. In which region is your school?

- a. Kgatleng
- b. South East

10. How would you best describe your current school setting?

- a. Rural
- b. Semi-Urban
- c. Urban

11. Which secondary class or form are you teaching currently?

- a. Form 4
- b. Form 5
- c. Form 4 and Form 5
- d. None of the above

12. Do you have a student or students with a disability in your class?

- a. Yes
- b. No

13. Have you ever taught a student with a disability?

- a. Yes
- b. No

14. Do you have a student with a visual impairment in your class?

- a. Yes
- b. No

15. Have you ever taught a student with a visual impairment?

- a. Yes
- b. No

Section 3: Key Terms

The aim of this section is to provide the participant with a definition of key terms utilized in this study. The definitions of these terms are based on literature and provide a common understanding of the main principles and concepts selected for exploration in this study regarding secondary transition, planning, and preparation approaches as well as their impact on outcomes for students with disabilities. The survey items were developed based on the United

States legal framework, dissertation research conducted by Dr. Daniel Dogbe, with the final survey instrument adjusted to suit the cultural context of Botswana.

Transition is a term that refers to the changes in a person's life, adjustments, and cumulative experiences that take place in youths as they progress from one stage of life to another (e.g., from school environments to employment and independent living) (Wehman, 2006).

Transition Planning is a process for all students who have an Individualized Education Program (IEP) in kindergarten to high school education aimed at facilitating students' movement from school to post-school activities (IDEA, 2004). For the purpose of this study, a written plan or an official documentation of a student's goals and objectives, developed with input from the student's teachers to address the student's educational needs, may be a substitute for the IEP. Thus, transition planning refers to what a school is doing to ensure that students pass their final year examinations and proceed to senior secondary school, vocational training, higher education and employment.

Transition Services are a coordinated set of activities for a child having a disability that:

- (A) is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including post-secondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation
- (B) is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and
- (C) includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation. (34 C.F.R § 300.43 (a), 2004)

Since the IDEA definition has significant cultural implications for the United States context, a more relevant definition of the context of Botswana by Halpern is adopted for this study.

According to Halpern, transition refers to:

A change in status from behaving primarily as a student to assuming emergent adult roles in the community. These roles include employment, participating in post-secondary education, maintaining a home, becoming appropriately involved in the community, and experiencing satisfactory personal and social relationships (Halpern, 1994, p. 117).

Self-Determination is defined as the blending of a person's skills, knowledge, and beliefs that give him/her the ability to engage in goal-oriented, self-regulated, and independent behavior (Algozzine, Browder, Karvonen, Test, & Wood, 2001). An example of a student with self-determination skills is one who can make choices, provide a solution to problems, set goals,

assess options, make efforts to attain one's goals, and take responsibility for one's actions (Rowe et al., 2013; Wehmeyer, 2001).

Assistive Technology Device refers to "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability" (34 C.F.R § 1401(1)(A)). An assistive technology device should impact a child with a disability's functioning. An example is a Closed Circuit Television (CCTV) which enables a child with a visual impairment to read regular print materials thereby leading to an improvement in his/her ability to complete school work.

Orientation and Mobility refers to the process of using a person's senses to establish his/her position in relation to the environment and objects within (orientation), as well as the person's ability and readiness to move about his/her environment safely and freely (mobility) (Hill, 1986). An example is the use of a white cane to increase the ability of a student with a visual impairment to move around the school environment and classroom to participate in school activities.

Section 3: Knowledge and Belief Statements Regarding Postsecondary Planning and Effective Transition Programs for Students with Disabilities

This section is meant to explore your beliefs and knowledge of transition planning and programming, as well as services and practices for supporting students to transition from junior secondary education and experience successful post-school outcomes. Please rate your degree of agreement with the items in this section by circling the appropriate response.

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Participants Transition Beliefs

A. I believe that transition for students with disabilities to postsecondary settings should encompass the following components:

- | | |
|--|-----------|
| 16. A written plan for each individual student with a disability | 1—2—3—4—5 |
| 17. A variety of activities to help transition to employment | 1—2—3—4—5 |
| 18. Specific goals and objectives corresponding to specific post-school outcomes | 1—2—3—4—5 |

- | | |
|--|-----------|
| 19. The strengths, abilities, priorities, interests, and needs of each student | 1—2—3—4—5 |
| 20. Constant assessment resulting in securing employment after school | 1—2—3—4—5 |
| 21. Teaching students both academic and functional skills | 1—2—3—4—5 |
| 22. Postsecondary education and/or employment as the main outcomes following secondary school completion | 1—2—3—4—5 |
| 23. Involvement of students' parents/families in transition planning and service delivery | 1—2—3—4—5 |
| 24. Collaboration with school staff and agencies outside the school | 1—2—3—4—5 |

Participants' Transition Knowledge

B. I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:

- | | |
|---|-----------|
| 25. The student transition planning process following completion of Form 5 | 1—2—3—4—5 |
| 26. Planning begins from Form 4 to Form 5 | 1—2—3—4—5 |
| 27. Planning involves continuous assessment for BGCSE | 1—2—3—4—5 |
| 28. Monitoring of academic and functional skills outcome goals | 1—2—3—4—5 |
| 29. Academic and functional skills outcome goals can be attained | 1—2—3—4—5 |
| 30. A student's planning is based on his/her strengths, abilities, priorities, interests, and needs | 1—2—3—4—5 |
| 31. BGCSE instructional goals are linked to postsecondary education | 1—2—3—4—5 |
| 32. BGCSE instructional goals are linked to technical and vocational education | 1—2—3—4—5 |
| 33. BGCSE instructional goals are linked to postsecondary employment | 1—2—3—4—5 |
| 34. Transition services and supports for students with disabilities after completion of secondary education | 1—2—3—4—5 |

Current Transition Practices Perceptions

C. The current BGCSE practices in my school involve:

- | | |
|--|-----------|
| 35. Participation of students in the transition planning process | 1—2—3—4—5 |
| 36. Participation of school staff only in the planning process | 1—2—3—4—5 |
| 37. Participation of school staff and parents only in the planning process | 1—2—3—4—5 |
| 38. Participation of school staff, parents, and students | 1—2—3—4—5 |
| 39. Participation of school staff and other agencies only | 1—2—3—4—5 |
| 40. Participation of school staff, students, parents, and agencies | 1—2—3—4—5 |
| 41. Academic subject instructions related to postsecondary education, vocational education training, and/or employment | 1—2—3—4—5 |
| 42. Functional subject instruction related to postsecondary education, vocational education, and/or employment | 1—2—3—4—5 |
| 43. Core and optional subjects that promote successful post-school outcomes | 1—2—3—4—5 |
| 44. Senior secondary supports related to successful transition outcomes | 1—2—3—4—5 |
| 45. Inclusive education supports related to transition services provision | 1—2—3—4—5 |

Section 4: Specific Practices for Students with Visual Impairments

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Effective Transition Planning Strategies

A. I believe the current senior secondary school program prepares students with visual impairments for successful post-school outcomes through the following:

- | | |
|--|-----------|
| 46. Training students in self-determination skills | 1—2—3—4—5 |
| 47. Training of students in the use of assistive technology | 1—2—3—4—5 |
| 48. Training of students in orientation and mobility skills | 1—2—3—4—5 |
| 49. Training of students in social skills | 1—2—3—4—5 |
| 50. Providing students with unpaid work experiences within the school | 1—2—3—4—5 |
| 51. Providing students with unpaid work experiences outside the school | 1—2—3—4—5 |
| 52. Providing students with paid work opportunities within the school | 1—2—3—4—5 |
| 53. Providing students with paid work opportunities outside the school | 1—2—3—4—5 |
| 54. Providing students with vocational instruction | 1—2—3—4—5 |
| 55. Training of students in academic skills | 1—2—3—4—5 |

Coursework for Postsecondary Education Participation

B. I believe the following subjects prepare students with visual impairments well for postsecondary education participation:

- | | |
|-----------------------|-----------|
| 56. Math | 1—2—3—4—5 |
| 57. Science | 1—2—3—4—5 |
| 58. English Language | 1—2—3—4—5 |
| 59. Setswana Language | 1—2—3—4—5 |
| 60. Optional Subjects | 1—2—3—4—5 |

Coursework for Participation in Employment

C. I believe the following subjects prepare students with visual impairments well for employment participation:

- | | |
|----------------------|-----------|
| 61. Math | 1—2—3—4—5 |
| 62. Science | 1—2—3—4—5 |
| 63. English Language | 1—2—3—4—5 |

- | | |
|-----------------------|-----------|
| 64. Setswana Language | 1—2—3—4—5 |
| 65. Optional Subjects | 1—2—3—4—5 |

Coursework for Vocational and Technical Training Participation

D. I believe the following subjects prepare students with visual impairments well for technical and vocational education training participation:

- | | |
|-----------------------|-----------|
| 66. Math | 1—2—3—4—5 |
| 67. Science | 1—2—3—4—5 |
| 68. English Language | 1—2—3—4—5 |
| 69. Setswana Language | 1—2—3—4—5 |
| 70. Optional Subjects | 1—2—3—4—5 |

Section 5: Teachers' Transition Challenges/Barriers

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Barriers to Effective Implementation of Transition Practices

A. I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:

- | | |
|--|-----------|
| 71. I am inadequately trained to support the transition process | 1—2—3—4—5 |
| 72. My school does not have enough staff to support the transition process | 1—2—3—4—5 |
| 73. My school does not have enough financial resources to support the transition process | 1—2—3—4—5 |
| 74. School administrators provide little support for students' transition | 1—2—3—4—5 |
| 75. There is lack of professional development activities related to transition | 1—2—3—4—5 |
| 76. Heavy teaching loads limit the level of transition support | 1—2—3—4—5 |
| 77. There is little or no collaboration with external agencies in the transition process | 1—2—3—4—5 |
| 78. There are no clear transition guidelines in my school | 1—2—3—4—5 |
| 79. It is difficult to align academic subjects with postsecondary goals | 1—2—3—4—5 |

Concluding Statement

Your time is highly appreciated and thank you once again for participating in this survey.

Appendix QQ – Vocational School Survey

Survey Title: *Vocational Teachers' Views about Transition Planning and Effective Transition Practices to Prepare Students with Disabilities for Post-School Environments in Botswana*

Section 1: About This Survey

Purpose: The purpose of this questionnaire is to explore the experiences and views of vocational teachers in helping students with disabilities to transition from vocational school to higher education and/or employment in Botswana. The survey seeks to explore teachers' knowledge, beliefs, and perceptions about what practices contribute to or impede successful postsecondary education and/or employment outcomes of youths with visual impairments at vocational schools. Through this questionnaire, information will be obtained from vocational teachers on their knowledge, experiences, and practices that result in successful post-school outcomes. By examining teachers' views about transition planning, this study will add to the scholarly research and literature in the field of special education. The study will contribute to an understanding of evidence-based practices that assist vocational school students with visual impairments to have improved post-school outcomes. Possible gains of this study include a contribution to an enhanced understanding of teachers' perceptions and the elements that contribute to or act as obstacles to the effective implementation of transition services. Consequently, knowledge of best practices regarding transition planning for youth with disabilities can go a long way in informing special education policy in Botswana. This is a critical step towards establishing a comprehensive transition framework for youths with disabilities which will partly address youth employment challenges in Botswana. The survey will require about 20-25 minutes and will be completed at your school. Participation in this survey is completely voluntary. You are free to opt to agree to or decline the request to participate in the study. You are also free to choose not to answer certain questions. You may also choose to withdraw from participating in this study at any time.

Section 2: Demographic Information

Please provide your background information by circling the item in each question that best describes you.

1. What is your gender?

- a. Male
- b. Female

2. What is your current age?

- a. 20-30 years
- b. 31-40 years
- c. 41-50 years
- d. 51-60 years
- e. 61+ years

3. What is your highest education qualification?
 - a. Professional Certificate
 - b. Diploma
 - c. Bachelor's Degree
 - d. Masters Degree
 - e. Doctoral Degree
 - f. Other

4. What type of teacher were you trained as?
 - a. General Education Teacher (Subject Teacher)
 - b. Special Education Teacher
 - c. Guidance and Counseling Teacher
 - d. Other

5. What is your current position in the school?
 - a. General Education Teacher (Subject Teacher)
 - b. Special Education Teacher
 - c. Guidance and Counseling Teacher
 - d. Vocational Teacher

6. What is your current role in the school?
 - a. Lecturer
 - b. Senior Lecturer
 - c. Head of Section
 - d. Head of Department

7. For how long have you been in the teaching profession?
 - a. 1-5 years
 - b. 6-10 years
 - c. 11-15 years
 - d. 16-20 years
 - e. More than 20 years

8. How long have you worked at your current school?
 - a. 1-2 years
 - b. 3-5 years
 - c. 6-10 years
 - d. 11-15 years
 - e. 16-20 years
 - f. More than 20 years

9. In which region is your school?

- a. Kgatleng
- b. South East

10. How would you best describe your current school setting?

- a. Rural
- b. Semi-Urban
- c. Urban

11. Which vocational class or year are you teaching currently?

- a. Year 1
- b. Year 2
- c. Year 3
- d. Year 1 and Year 2
- e. Year 2 and Year 3
- f. None of the above
- g. All of the above

12. Do you have a student or students with a disability in your class?

- a. Yes
- b. No

13. Have you ever taught a student with a disability?

- a. Yes
- b. No

14. Do you have a student with a visual impairment in your class?

- a. Yes
- b. No

15. Have you ever taught a student with a visual impairment?

- a. Yes
- b. No

Section 3: Key Terms

The aim of this section is to provide the participant with a definition of key terms utilized in this study. The definitions of these terms are based on literature and provide a common understanding of the main principles and concepts selected for exploration in this study regarding transition, planning and preparation approaches as well as their impact on outcomes

for students with disabilities. The survey items were developed based on the United States legal framework, dissertation research conducted by Dr. Daniel Dogbe, with the final survey instrument adjusted to suit the cultural context of Botswana.

Transition is a term that refers to the changes in a person's life, adjustments, and cumulative experiences that take place in youths as they progress from one stage of life to another (e.g., from school environments to employment and independent living) (Wehman, 2006).

Transition Planning is a process for all students who have an Individualized Education Program (IEP) in kindergarten to high school education aimed at facilitating students' movement from school to post-school activities (IDEA, 2004). For the purpose of this study, a written plan or an official documentation of a student's goals and objectives, developed with input from the student's teachers to address the student's educational needs, may be a substitute for the IEP. Thus, transition planning refers to what a school is doing to ensure that students pass their final year examinations and proceed to senior secondary school, vocational training, higher education and employment.

Transition Services are a coordinated set of activities for a child having a disability that:

(A) is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including post-secondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation

(B) is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and

(C) includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation. (34 C.F.R § 300.43 (a), 2004)

Since the IDEA definition has significant cultural implications for the United States context, a more relevant definition to the context of Botswana by Halpern is adopted for this study.

According to Halpern, transition refers to:

a change in status from behaving primarily as a student to assuming emergent adult roles in the community. These roles include employment, participating in post-secondary education, maintaining a home, becoming appropriately involved in the community, and experiencing satisfactory personal and social relationships (Halpern, 1994, p. 117).

Self-Determination is defined as the blending of a person's skills, knowledge, and beliefs that give him/her the ability to engage in goal-oriented, self-regulated, and independent behavior (Algozzine, Browder, Karvonen, Test, & Wood, 2001). An example of a student with self-determination skills is one who can make choices, provide a solution to problems, set goals,

assess options, make efforts to attain one's goals, and take responsibility for one's actions (Rowe et al., 2013; Wehmeyer, 2001).

Assistive Technology Device refers to "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability" (34 C.F.R § 1401(1)(A)). An assistive technology device should impact a child with a disability's functioning. An example is a Closed Circuit Television (CCTV) which enables a child with a visual impairment to read regular print materials thereby leading to an improvement in his/her ability to complete school work.

Orientation and Mobility refers to the process of using a person's senses to establish his/her position in relation to the environment and objects within (orientation), as well as the person's ability and readiness to move about his/her environment safely and freely (mobility) (Hill, 1986). An example is the use of a white cane to increase the ability of a student with a visual impairment to move around the school environment and classroom to participate in school activities.

Section 3: Knowledge and Belief Statements Regarding Post-school Planning and Effective Transition Practices for Students with Disabilities

This section is meant to explore your beliefs and knowledge of transition planning and programming, as well as services and practices for supporting students to transition from vocational education and experience successful post-school outcomes. Please rate your degree of agreement with the items in this section by circling the appropriate response.

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Participants Transition Beliefs

A. I believe that transition for students with disabilities to post-school settings should encompass the following components:

- | | |
|---|-----------|
| 16. A documentation for each individual student with a disability | 1—2—3—4—5 |
| 17. A variety of job tasks to help transition to employment | 1—2—3—4—5 |
| 18. Specific goals and objectives corresponding to specific post-school | 1—2—3—4—5 |

outcomes

- | | |
|---|-----------|
| 19. The strengths, abilities, priorities, interests, and needs of each student | 1—2—3—4—5 |
| 20. Constant assessment resulting in securing employment after school | 1—2—3—4—5 |
| 21. Teaching students both academic and life skills | 1—2—3—4—5 |
| 22. Postsecondary education and/or employment as the main outcomes following vocational school completion | 1—2—3—4—5 |
| 23. Involvement of students' parents/families in transition process and service delivery | 1—2—3—4—5 |
| 24. Collaboration with school staff and agencies outside the school | 1—2—3—4—5 |
| 25. Involvement of student in community-based experiences | 1—2—3—4—5 |
| 26. Interaction of students with employees without disabilities | 1—2—3—4—5 |
| 27. Providing students with various work experiences | 1—2—3—4—5 |

Participants' Transition Knowledge

B. I have comprehensive knowledge and understanding of the transition process for students with disabilities concerning the following:

- | | |
|---|-----------|
| 28. The student transition continuation process following completion of Forms 3 or 5 | 1—2—3—4—5 |
| 29. Planning begins from Year 1 to Year 3 | 1—2—3—4—5 |
| 30. Planning involves continuous assessment for certification | 1—2—3—4—5 |
| 31. Monitoring of academic and functional skills outcome goals | 1—2—3—4—5 |
| 32. Academic and functional skills outcome goals can be attained | 1—2—3—4—5 |
| 33. A student's planning is based on his/her strengths, abilities, priorities, interests, and needs | 1—2—3—4—5 |
| 34. Vocational instructional goals are linked to higher education | 1—2—3—4—5 |
| 35. Vocational instructional goals are linked to employment | 1—2—3—4—5 |
| 36. Transition services and supports for students with disabilities after completion of vocational training | 1—2—3—4—5 |
| 37. Assessment of students' generalization of skills across various sites | 1—2—3—4—5 |
| 38. Selection of vocational instruction sites representative of local market needs | 1—2—3—4—5 |

Current Transition Practices Perceptions

C. The current vocational practices in my school involve:

- | | |
|--|-----------|
| 39. Participation of students in the transition planning process | 1—2—3—4—5 |
| 40. Participation of school staff only in the planning process | 1—2—3—4—5 |
| 41. Participation of school staff and parents only in the planning process | 1—2—3—4—5 |
| 42. Participation of school staff, parents, and students | 1—2—3—4—5 |
| 43. Participation of school staff and other agencies only | 1—2—3—4—5 |
| 44. Participation of school staff, students, parents, and agencies | 1—2—3—4—5 |
| 45. Academic subject instructions related to higher education and/or | 1—2—3—4—5 |

employment

46. Functional subject instruction related to higher education and/or employment 1—2—3—4—5

47. Core and optional subjects that promote successful post-school outcomes 1—2—3—4—5

48. Vocational supports related to successful transition outcomes 1—2—3—4—5

49. Inclusive education supports related to transition services provision 1—2—3—4—5

Section 4: Specific Practices for Students with Visual Impairments

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Effective Transition Planning Strategies

A. I believe the current vocational school program prepares students with visual impairments for successful post-school outcomes through the following:

50. Training of students in self-determination skills 1—2—3—4—5

51. Training of students in the use of assistive technology 1—2—3—4—5

52. Training of students in orientation and mobility skills 1—2—3—4—5

53. Training of students in social skills 1—2—3—4—5

54. Providing students with unpaid work experiences within the school 1—2—3—4—5

55. Providing students with unpaid work experiences outside the school 1—2—3—4—5

56. Providing students with paid work opportunities within the school 1—2—3—4—5

57. Providing students with paid work opportunities outside the school 1—2—3—4—5

58. Teaching students employment skills 1—2—3—4—5

59. Training of students in academic skills 1—2—3—4—5

Coursework for Postsecondary Education Participation

B. I believe the following subjects prepare students with visual impairments well for postsecondary education participation:

60. Math 1—2—3—4—5

61. Carpentry-Related Subjects 1—2—3—4—5

62. Brick Laying Subjects 1—2—3—4—5

63. English Language 1—2—3—4—5

64. Accounting-Related Subjects 1—2—3—4—5

65. Computer-Related Subjects 1—2—3—4—5

- | | |
|---------------------------------|-----------|
| 66. Management-Related Subjects | 1—2—3—4—5 |
| 67. Other Subjects | 1—2—3—4—5 |

Coursework for Participation in Employment

C. I believe the following subjects prepare students with visual impairments well for employment participation:

- | | |
|---------------------------------|-----------|
| 68. Math | 1—2—3—4—5 |
| 69. Carpentry-Related subjects | 1—2—3—4—5 |
| 70. Brick Laying Subjects | 1—2—3—4—5 |
| 71. English Language | 1—2—3—4—5 |
| 72. Accounting-Related Subjects | 1—2—3—4—5 |
| 73. Computer-Related Subjects | 1—2—3—4—5 |
| 74. Management-Related Subjects | 1—2—3—4—5 |
| 75. Other Subjects | 1—2—3—4—5 |

Section 5: Teachers' Transition Challenges/Barriers

Rating Scale: Degree of Agreement with Study Item Statement

1 = Strongly Disagree with Statement = 0-25% agreement

2 = Disagree with Statement = 26-50% agreement

3 = Agree with Statement = 51-75% agreement

4 = Strongly Agree with Statement = 76-100% agreement

5 = Do Not Know = No knowledge of the survey item

Please circle the appropriate response

Barriers to Effective Implementation of Transition Practices

A. I perceive the following as negatively impacting on transition planning, service provision, and therefore post-school outcomes for students with disabilities:

- | | |
|--|-----------|
| 76. I am inadequately trained to support the transition process | 1—2—3—4—5 |
| 77. My school does not have enough staff to support the transition process | 1—2—3—4—5 |
| 78. My school does not have enough financial resources to support the transition process | 1—2—3—4—5 |
| 79. School administrators provide little support for students' transition | 1—2—3—4—5 |
| 80. There is lack of professional development activities related to transition | 1—2—3—4—5 |
| 81. Heavy teaching loads limit the level of transition support | 1—2—3—4—5 |
| 82. There is little or no collaboration with external agencies in the transition process | 1—2—3—4—5 |
| 83. There are no clear transition guidelines in my school | 1—2—3—4—5 |
| 84. It is difficult to align academic courses with employment goals | 1—2—3—4—5 |

Concluding Statement

Your time is highly appreciated and thank you once again for participating in this survey.

Appendix RR – Junior Secondary School Consent Form

Teachers' Views About Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana

INFORMED CONSENT (Junior Secondary School)

Inclusion Criteria: To participate in this survey you must be aged between 21 and 65 and be a general education teacher, special education teacher, or a guidance and counseling teacher working in a public junior secondary school setting in the Kgatleng or South East school region in Botswana.

Participation Procedures and Duration: For this study, you will be asked to complete a paper and pencil survey regarding postsecondary school planning and preparation for students with disabilities to transition successfully from junior secondary school to senior secondary, vocational training, and employment. You will be asked to share your knowledge, beliefs, and perceptions about transition planning and principles as they apply to junior secondary schools in Botswana. The survey will take approximately 20-25 minutes to complete and will be administered at your respective school setting.

Data Anonymity: All data will be personally collected and stored in the possession of the researcher. Responses will be coded to facilitate the data analysis process and no individual or study location identifying information will be presented in any publication or presentation related to the study. A four-digit code will be developed for individual surveys to assist with survey distribution and participation accounting as a part of the data collection procedures. The researcher will keep all data for this study in a locked briefcase and or file.

Storage of Data: All data from the survey will be saved electronically as an Excel file on the researcher's laptop which is password protected accessible only by the researcher through his Ball State University user account. The faculty advisor will also have the data and SPSS files on her computer. The researcher and the faculty advisor are the only individuals who will have access to the data. All data will be kept for the duration of the study and will be deleted within two years of the completion of the study. All data files and computers are password protected.

Risks: There are no predictable risks involved in this study. You may choose to not answer any question that makes you uncomfortable and you may stop the survey at any time.

Voluntary Participation: You have a completely voluntary participation in this study and you may choose to withdraw your permission or participation at any time for any reason without penalty. Your participation will not affect your employment within your school. Please feel free to contact me if you have any questions or concerns about the survey. If you decide to participate in the survey, thank you in advance and please select "I Agree" below and date the Consent form

and return it to the researcher. You will be provided with the survey and instructions to complete the questionnaire after completing the Consent Form.

If you choose not to participate, I appreciate your time and please select "I Decline" below, date the Consent form and return it to the researcher. You may be excused for the remainder of the meeting schedule and thank you for your time.

☐

I Agree

Date

☐

I Decline

Date

Signature:

Thank you for your participation in the study.

Primary Researcher:

Goitse Ookeditse
 Doctoral Candidate
 Department of Special Education
 Ball State University
 Email: gbookeditse@bsu.edu
 Mobile Phone number: 7652124248

Faculty Advisor:

Dr. Lisa Pufpaff
 Associate Professor of Special Education
 Department of Special Education
 Ball State University
 Email: lapufpaff@bsu.edu
 Office: 7652855714

If you have any questions, please see below:

IRB Contact Information: For one's rights as a research subject, you may contact the following: Director, Office of Research Integrity, Ball State University, Muncie, IN 47306 (765) 285-5070 or irb@bsu.edu.

Appendix SS – Senior Secondary School Consent Form

Teachers' Views About Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana

INFORMED CONSENT (Senior Secondary School)

Inclusion Criteria: To participate in this survey you must be aged between 21 and 65 and be a general education teacher, special education teacher, or a guidance and counseling teacher working in a public senior secondary school setting in the Kgatleng or South East school region in Botswana.

Participation Procedures and Duration: For this study, you will be asked to complete a paper and pencil survey regarding postsecondary school planning and preparation for students with disabilities to transition successfully from senior secondary school to postsecondary, vocational training, and employment. You will be asked to share your knowledge, beliefs, and perceptions about transition planning and principles as they apply to senior secondary schools in Botswana. The survey will take approximately 20-25 minutes to complete and will be administered at your respective school setting.

Data Anonymity: All data will be personally collected and stored in the possession of the researcher. Responses will be coded to facilitate the data analysis process and no individual or study location identifying information will be presented in any publication or presentation related to the study. A four-digit code will be developed for individual surveys to assist with survey distribution and participation accounting as a part of the data collection procedures. The researcher will keep all data for this study in a locked briefcase and or file.

Storage of Data: All data from the survey will be saved electronically as an Excel file on the researcher's laptop which is password protected accessible only by the researcher through his Ball State University user account. The faculty advisor will also have the data and SPSS files on her computer. The researcher and the faculty advisor are the only individuals who will have access to the data. All data will be kept for the duration of the study and will be deleted within two years of the completion of the study. All data files and computers are password protected.

Risks: There are no predictable risks involved in this study. You may choose to not answer any question that makes you uncomfortable and you may stop the survey at any time.

Voluntary Participation: You have a completely voluntary participation in this study and you may choose to withdraw your permission or participation at any time for any reason without penalty. Your participation will not affect your employment within your school. Please feel free to contact me if you have any questions or concerns about the survey. If you decide to participate in the survey, thank you in advance and please select "I Agree" below and date the Consent form

and return it to the researcher. You will be provided with the survey and instructions to complete the questionnaire after completing the Consent Form.

If you choose not to participate, I appreciate your time and please select "I Decline" below, date the Consent form and return it to the researcher. You may be excused for the remainder of the meeting schedule and thank you for your time.

☐

I Agree

Date

☐

I Decline

Date

Signature:

Thank you for your participation in the study.

Primary Researcher:

Goitse Ookeditse
 Doctoral Candidate
 Department of Special Education
 Ball State University
 Email: gbookeditse@bsu.edu
 Mobile Phone number: 7652124248

Faculty Advisor:

Dr. Lisa Pufpaff
 Associate Professor of Special Education
 Department of Special Education
 Ball State University
 Email: lapufpaff@bsu.edu
 Office: 7652855714

If you have any questions, please see below:

IRB Contact Information: For one's rights as a research subject, you may contact the following: Director, Office of Research Integrity, Ball State University, Muncie, IN 47306 (765) 285-5070 or irb@bsu.edu.

Appendix TT – Vocational School Consent Form

Teachers' Views About Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana

INFORMED CONSENT (Vocational School)

Inclusion Criteria: To participate in this survey you must be aged between 21 and 65 and be a vocational teacher working in a public vocational training school setting in the Kgatleng or South East school region in Botswana.

Participation Procedures and Duration: For this study, you will be asked to complete a paper and pencil survey regarding post-school planning and preparation for students with disabilities to transition successfully from vocational school to postsecondary education and employment. You will be asked to share your knowledge, beliefs, and perceptions about transition planning and principles as they apply to vocational schools in Botswana. The survey will take approximately 20-25 minutes to complete and will be administered at your respective school setting.

Data Anonymity: All data will be personally collected and stored in the possession of the researcher. Responses will be coded to facilitate the data analysis process and no individual or study location identifying information will be presented in any publication or presentation related to the study. A four-digit code will be developed for individual surveys to assist with survey distribution and participation accounting as a part of the data collection procedures. The researcher will keep all data for this study in a locked briefcase and or file.

Storage of Data: All data from the survey will be saved electronically as an Excel file on the researcher's laptop which is password protected accessible only by the researcher through his Ball State University user account. The faculty advisor will also have the data and SPSS files on her computer. The researcher and the faculty advisor are the only individuals who will have access to the data. All data will be kept for the duration of the study and will be deleted within two years of the completion of the study. All data files and computers are password protected.

Risks: There are no predictable risks involved in this study. You may choose to not answer any question that makes you uncomfortable and you may stop the survey at any time.

Voluntary Participation: You have a completely voluntary participation in this study and you may choose to withdraw your permission or participation at any time for any reason without penalty. Your participation will not affect your employment within your school. Please feel free to contact me if you have any questions or concerns about the survey. If you decide to participate in the survey, thank you in advance and please select "I Agree" below and date the Consent form

and return it to the researcher. You will be provided with the survey and instructions to complete the questionnaire after completing the Consent Form.

If you choose not to participate, I appreciate your time and please select "I Decline" below, date the Consent form and return it to the researcher. You may be excused for the remainder of the meeting schedule and thank you for your time.

☐

I Agree

Date

☐

I Decline

Date

Signature:

Thank you for your participation in the study.

Primary Researcher:

Goitse Ookeditse
 Doctoral Candidate
 Department of Special Education
 Ball State University
 Email: gbookeditse@bsu.edu
 Mobile Phone number: 7652124248

Faculty Advisor:

Dr. Lisa Pufpaff
 Associate Professor of Special Education
 Department of Special Education
 Ball State University
 Email: lapufpaff@bsu.edu
 Office: 7652855714

If you have any questions, please see below:

IRB Contact Information: For one's rights as a research subject, you may contact the following: Director, Office of Research Integrity, Ball State University, Muncie, IN 47306 (765) 285-5070 or irb@bsu.edu.

Appendix UU – Collaborative Institutional Training Initiative (CITI) Report

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Gottse Ookeditse (ID: 1569554)
- **Email:** gbookeditse@bsu.edu
- **Institution Affiliation:** Ball State University (ID: 1568)
- **Institution Unit:** Special Education
- **Curriculum Group:** Social & Behavioral Research - Basic/Refresher
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.
- **Report ID:** 21886668
- **Completion Date:** 11-Jan-2017
- **Expiration Date:** 11-Jan-2020
- **Minimum Passing:** 80
- **Reported Score*:** 95

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Belmont Report and CITI Course Introduction (ID: 1127)	10-Jan-2017	3/3 (100%)
Students In Research (ID: 1321)	10-Jan-2017	4/5 (80%)
History and Ethical Principles - SBE (ID: 490)	10-Jan-2017	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	10-Jan-2017	4/5 (80%)
The Federal Regulations - SBE (ID: 502)	10-Jan-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	10-Jan-2017	5/5 (100%)
Informed Consent - SBE (ID: 504)	10-Jan-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	10-Jan-2017	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	10-Jan-2017	4/5 (80%)
Research with Children - SBE (ID: 507)	10-Jan-2017	4/5 (80%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	11-Jan-2017	5/5 (100%)
International Research - SBE (ID: 509)	11-Jan-2017	5/5 (100%)
Internet-Based Research - SBE (ID: 510)	11-Jan-2017	5/5 (100%)
Research and HIPAA Privacy Protections (ID: 14)	11-Jan-2017	5/5 (100%)
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	11-Jan-2017	4/4 (100%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	11-Jan-2017	5/5 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	11-Jan-2017	5/5 (100%)
Ball State University (ID: 13475)	11-Jan-2017	No Quiz

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing Institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?kca4247b4-dd49-4a56-84bd-725b41bdba6a-21886668

CITI Program
Email: support@citiprogram.org
Phone: 888-529-5929
Web: <https://www.citiprogram.org>

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 2 OF 2

COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Gaila Oskedise (ID: 1565554)
- **Email:** goskedise@osu.edu
- **Institution Affiliation:** Ball State University (ID: 1538)
- **Institution Unit:** Special Education
- **Curriculum Group:** Social & Behavioral Research - Basic/Refresher
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for investigators and staff involved primarily in Social/Behavioral Research with human subjects.
- **Report ID:** 2158858
- **Report Date:** 1 Jan 2017
- **Current Score**:** 95

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Students in Research (ID: 132)	10-Jan-2017	4/5 (80%)
Ball State University (ID: 15475)	11-Jan-2017	No Quiz
History and Ethical Principles - SBE (ID: 490)	10-Jan-2017	5/5 (100%)
Designing Research with Human Subjects - SBE (ID: 491)	10-Jan-2017	4/5 (80%)
Belmont Report and CITI Course Introduction (ID: 1127)	10-Jan-2017	3/5 (60%)
The Federal Regulations - SDC (ID: 502)	10-Jan-2017	5/5 (100%)
Assessing Risk - SDC (ID: 503)	10-Jan-2017	5/5 (100%)
Informed Consent - SBE (ID: 504)	10-Jan-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	10-Jan-2017	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	10-Jan-2017	4/5 (80%)
Research with Children - SBE (ID: 507)	10-Jan-2017	4/5 (80%)
Research in Public Elementary and Secondary Schools - SDC (ID: 508)	11-Jan-2017	5/5 (100%)
International Research - SDC (ID: 509)	11-Jan-2017	5/5 (100%)
Internet Based Research - SDC (ID: 510)	11-Jan-2017	5/5 (100%)
Research and HIPAA Privacy Protections (ID: 14)	11-Jan-2017	5/5 (100%)
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	11-Jan-2017	4/4 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14525)	11-Jan-2017	5/5 (100%)
Conflicts of Interest in Research Involving Human Subjects (ID: 438)	11-Jan-2017	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing Institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify?x284247b4-cd40-4e95-81b3-725b11ed8e55-21588585

Collaborative Institutional Training Initiative (CITI Program)

Email: support@citiprogram.org

Phone: 888.528.5929

Web: <http://www.citiprogram.org>

Collaborative Institutional
Training Initiative

Appendix VV – Ball State University IRB Approval Letter



Office of Research Integrity
 Institutional Review Board (IRB)
 2000 University Avenue
 Muncie, IN 47306-0155
 Phone: 765-285-5070

DATE: March 21, 2017

TO: Goitse Ookeditse

FROM: Ball State University IRB

RE: IRB protocol # 1026816-1

TITLE: Teachers' Views About Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana

SUBMISSION TYPE: New Project

ACTION: APPROVED

DECISION DATE: March 21, 2017

REVIEW TYPE: EXEMPT

The Institutional Review Board reviewed your protocol on March 21, 2017 and has determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record.

Exempt Categories:

	Category 1: Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
X	Category 2: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior
	Category 3: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under category 2, if: (i) the human subjects are elected or appointed officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
	Category 4: Research involving the collection of study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or

	if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
	Category 5: Research and demonstration projects which are conducted by or subject to the approval of Department or agency heads, and which are designed to study, evaluate or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in methods or levels of payment for benefits or services under those programs.
	Category 6: Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed which contains a food ingredient at or below the level and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

Editorial Notes:

1. N/A

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. **Any procedural modifications must be evaluated by the IRB before being implemented, as some modifications may change the review status of this project.** Please contact (ORI Staff) if you are unsure whether your proposed modification requires review or have any questions. Proposed modifications should be addressed in writing and submitted electronically to the IRB (<http://www.bsu.edu/irb>) for review. Please reference the above IRB protocol number in any communication to the IRB regarding this project.

Reminder: Even though your study is exempt from the relevant federal regulations of the Common Rule (45 CFR 46, subpart A), you and your research team are not exempt from ethical research practices and should therefore employ all protections for your participants and their data which are appropriate to your project.

Bryan Byers, PhD/Chair
Institutional Review Board

Christopher Mangelli, JD, MS, MEd, C/P/Director
Office of Research Integrity

Appendix WW – Ball State University IRB Modified Approval Letter



Office of Research Integrity
 Institutional Review Board (IRB)
 2000 University Avenue
 Muncie, IN 47306-0155
 Phone: 765-285-5070

DATE: April 21, 2017

TO: Goitse Ookeditse

FROM: Ball State University IRB

RE: IRB protocol # 1026816-2

TITLE: Teachers' Views About Postsecondary Planning and Effective Transition Programs for Students with Disabilities in Botswana

SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVED

DECISION DATE: April 21, 2017

REVIEW TYPE: EXEMPT

The Institutional Review Board reviewed your protocol on April 21, 2017 and has determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record.

Exempt Categories:

	Category 1: Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
	Category 2: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior
	Category 3: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under category 2, if: (i) the human subjects are elected or appointed officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
	Category 4: Research involving the collection of study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or

	If the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
	Category 5: Research and demonstration projects which are conducted by or subject to the approval of Department or agency Heads, and which are designed to study, evaluate or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in methods or levels of payment for benefits or services under these programs.
	Category 6: Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed which contains a food ingredient at or below the level and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

Editorial Notes:

1. Modification Approved

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. **Any procedural modifications must be evaluated by the IRB before being implemented, as some modifications may change the review status of this project.** Please contact (ORI Staff) if you are unsure whether your proposed modification requires review or have any questions. Proposed modifications should be addressed in writing and submitted electronically to the IRB (<http://www.bsu.edu/irb>) for review. Please reference the above IRB protocol number in any communication to the IRB regarding this project.

Reminder: Even though your study is exempt from the relevant federal regulations of the Common Rule (45 CFR 46, subpart A), you and your research team are not exempt from ethical research practices and should therefore employ all protections for your participants and their data which are appropriate to your project.

Bryan Byers, PhD/Chair
Institutional Review Board

Christopher Mangelli, JD, MS, MEd, CIP/Director
Office of Research Integrity